



SWOS PCO/PXO BRIEF

RADM George Mayer

Naval Safety

Center

18

August 2006

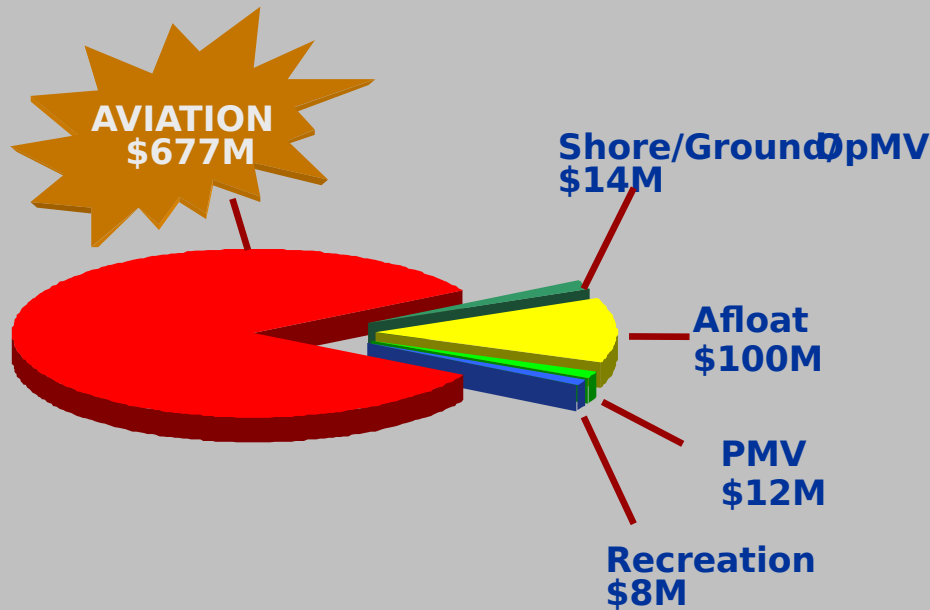
Crew Safety during Hi-tempo Operations

The Missile Deck

FY05 Total Cost and Deaths

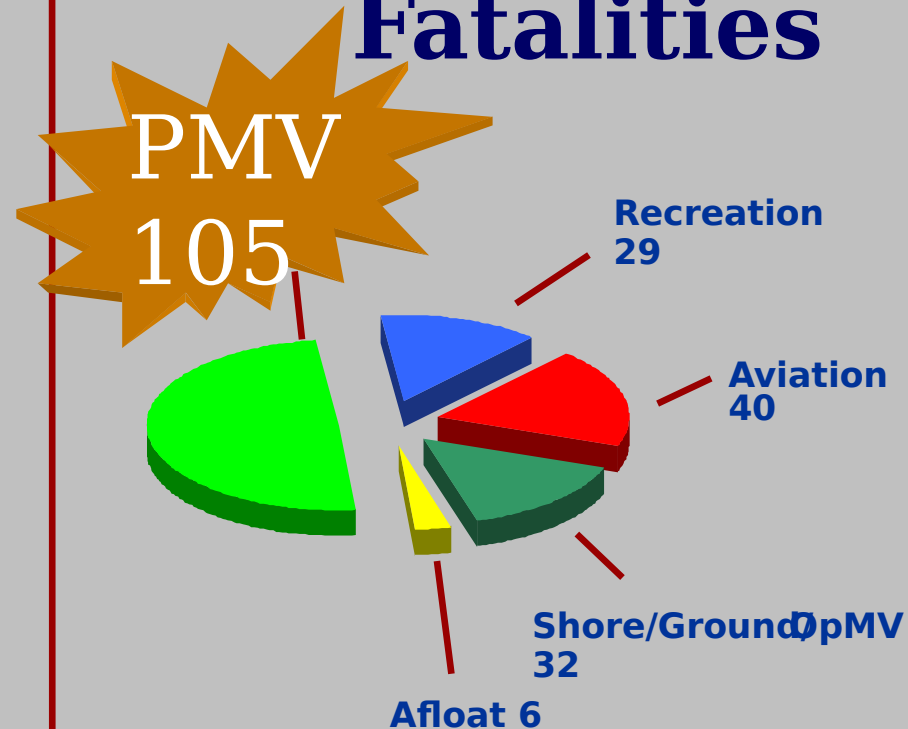
Navy and Marine Corps

Cost



Total Cost: \$811M

Fatalities



Total Fatalities: 212

Magnitude of Accidents

In FY05, Navy and Marine Corps Mishaps Resulted In:

NAVY

- **1 Navy death every 88 hours (4 days)**
- **1 POV death every 151 hours (6 days)**
- **1 Afloat Class A Mishap per month**
- **\$100,480,263 loss in Afloat mishaps**

MARINE CORPS

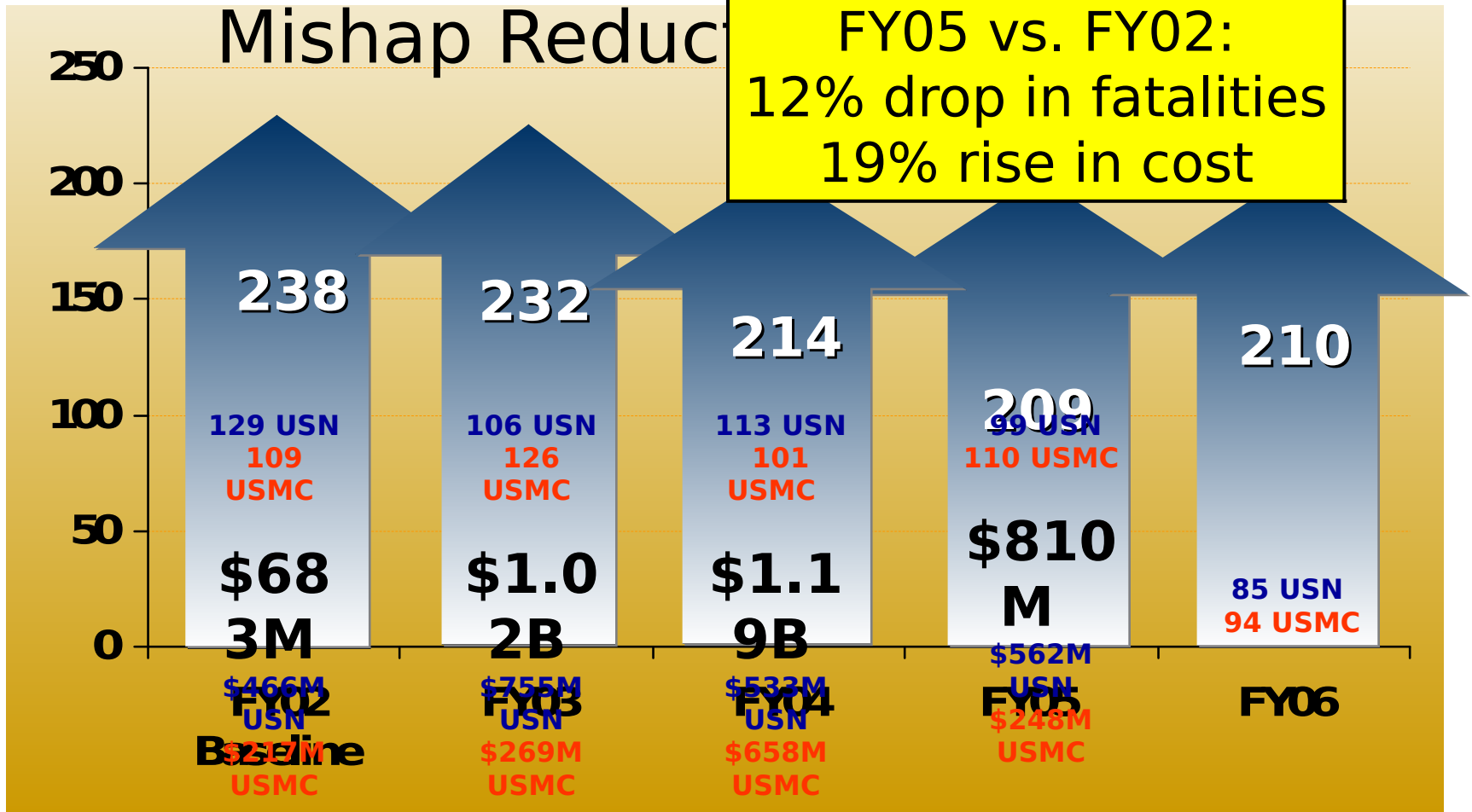
- **1 Marine death every 80 hours (3 days)**
- **1 POV death every 195 hours (8 days)**
- **1 Aviation death every 11 days**
- **1 Aircraft destroyed every 19 days**
- **\$1.63M a day in aviation losses**

USN/USMC Fatalities & Resources Lost During

Mishap Reduction

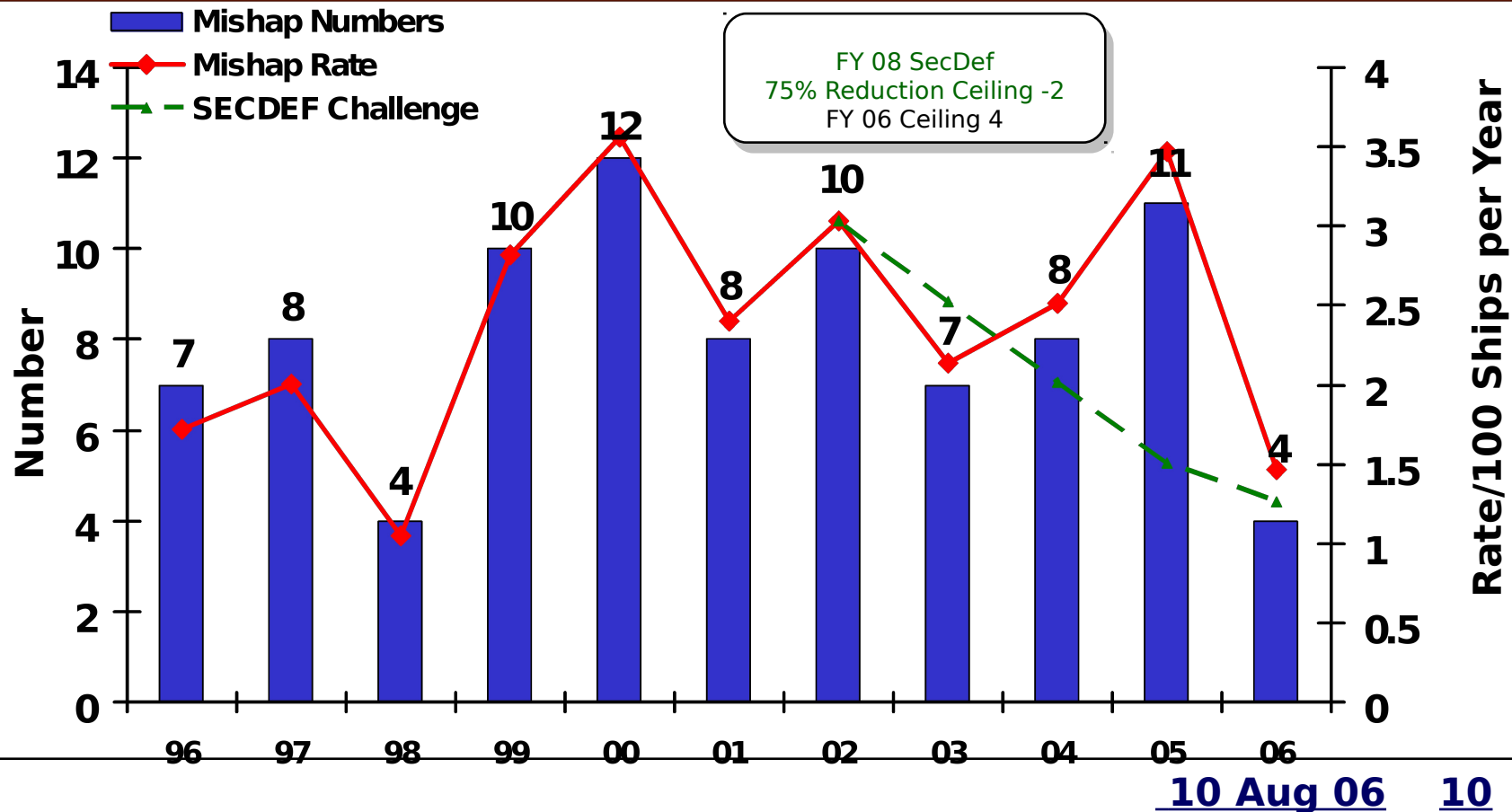
FY05 vs. FY02:
12% drop in fatalities
19% rise in cost

NUMBER OF FATALITIES



ENDSTATE GOAL IS ZERO!

CLASS A AFLOAT MISHAPS



Aug 05

CLASS A MISHAPS/MISHAP RATE FY COMPARISON: **4 / 1.47** **7 /**

2.56

FY05 MISHAPS/MISHAP RATE: **11 / 3.47**

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE: **8.5 / 2.43**

Areas of Concern – Afloat

- Human error is primary cause of all shipboard mishaps.
 - Inadequate Supervision
 - PMS not accomplished
 - Poor Crew Resource Management
 - Lack of Situational Awareness
 - Complacency
- Strict adherence to CO's Standing Orders and Rules of the Road critical to safe operation.
- Chronic fatigue impacts decision making ability and judgment of shipboard personnel (especially watchstanders).
 - Schedule shipboard evolutions to maximize personnel "downtime" for recuperative sleep.
- Shipboard maintenance evolutions must adhere to the Joint Fleet Maintenance Manual and ensure Quality Assurance before, during and upon completion of every maintenance evolution.

Best Fleet Practices - Afloat

Integrate ORM into all shipboard training and Off-Duty activities.

1. Visible senior leadership support for/and verification of ORM by work center personnel during daily activities.
2. Departmental/divisional quarters – Led by Officers and CPO's. (Don't be an E-mail Leader!)
3. Daily senior leadership – Involved with work center personnel.
4. Consistent use and application of RM throughout chain-of-command – On- and Off-Duty!

USS JOHN F KENNEDY

22 July 04

Collision with dhow



USS PATRIOT

19 March 2005

Grounding with material damage



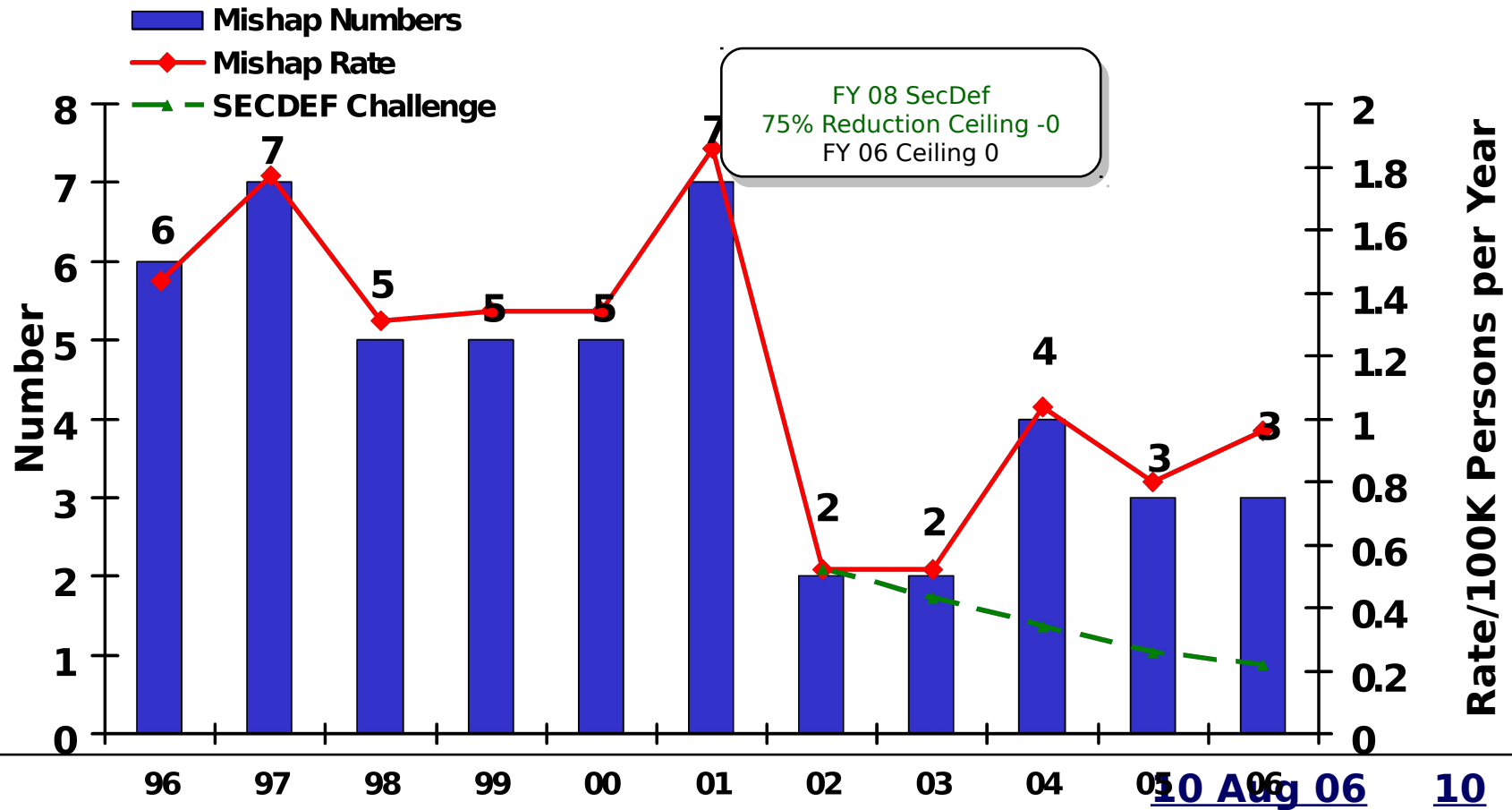
USS ESSEX

07 June 2005

Fatality from exposure to H₂S/ΔFFF after



CLASS A SHORE OPER MISHAPS



Aug 05

CLASS A MISHAPS/MISHAP RATE FY COMPARISON: 3 / 0.96 2 / 0.62

FY05 MISHAPS/MISHAP RATE: 3 / 0.80

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE: 4.6 / 1.20

SWOS Brief. 18 August 2006

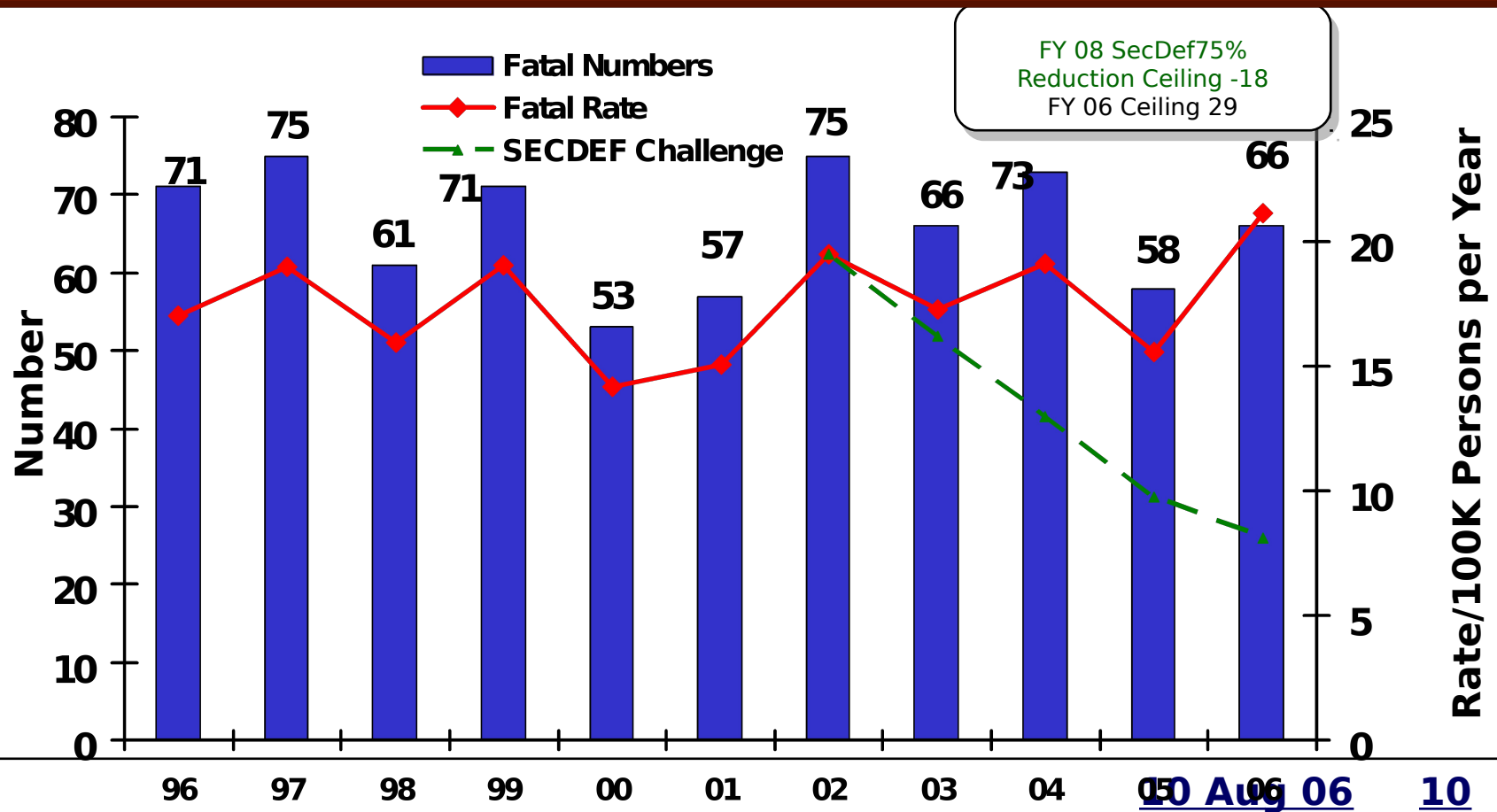
NSC data as of 10 Aug

117 Navy and Marine Corps PMV Fatalities = 6.9 USS

Cole losses



PMV FATALITIES



Aug 05

CLASS A FATALITIES/FATALITY RATE FY COMPARISON: 66 / 21.14 48 / 14.95

FY05 FATALITIES/FATALITY RATE: 58 / 15.54

10-YEAR AVERAGE (FY96-05) FATALITIES/FATALITY RATE: 66.0 / 17.18

SWOS Brief. 18 August 2006

NSC data as of 10 Aug



FLEET BEST PRACTICES – PMV

1. Find out who is at risk – help them manage that risk; engaged mentorship
2. Understand that becoming a safe driver is part of young person's maturation process; recent studies indicate is not complete until age 25 or above
3. Traffic Safety Toolbox to provide the necessary tools to reduce mishaps
4. Engage in partnerships with local community. (Click It or Ticket, *You Drink, You Drive, You Lose*, MADD)
5. Letter home to solicit family's help to keep their loved one safe
6. Make traffic safety a paramount consideration of command; on par with other operational considerations



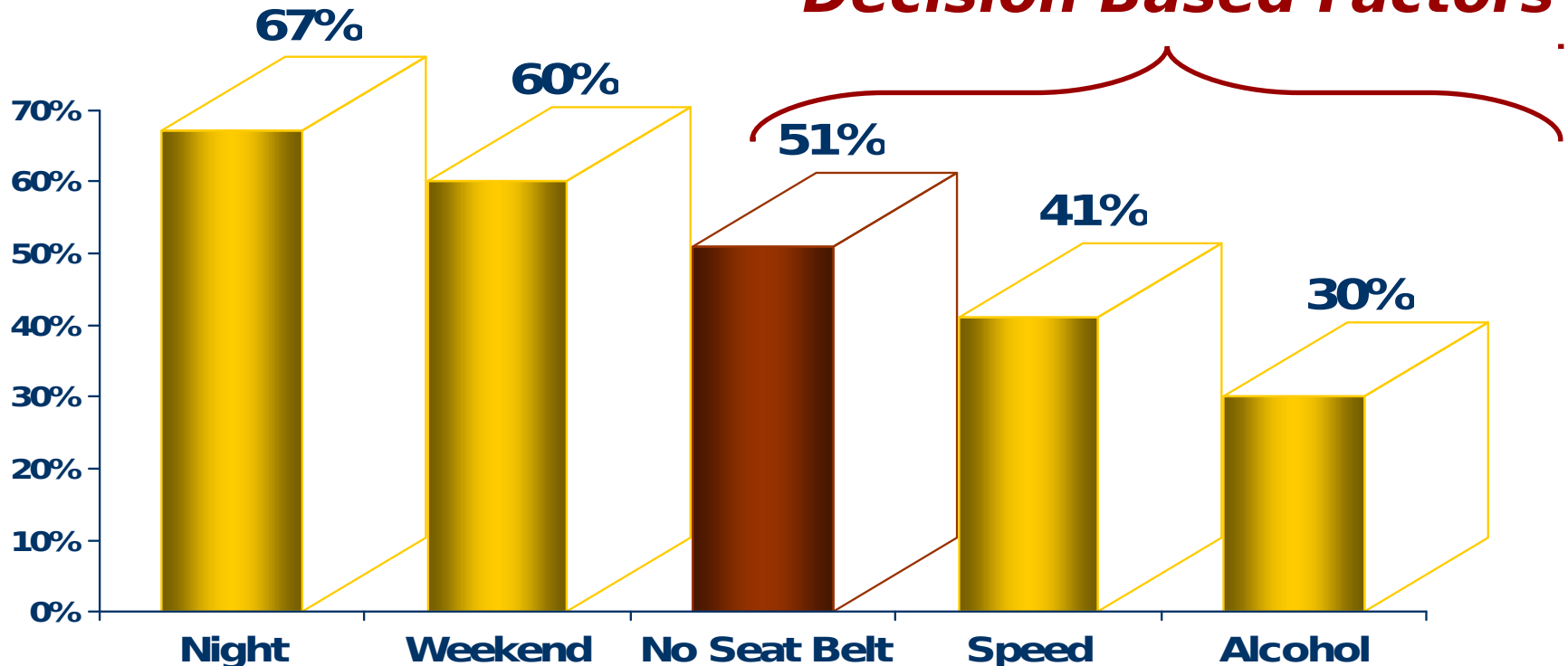
vidman.ca



Leading Factors In Traffic Deaths (FY02-04)

Fatigue is considered a major factor in traffic deaths, but is under-reported throughout the fleet.

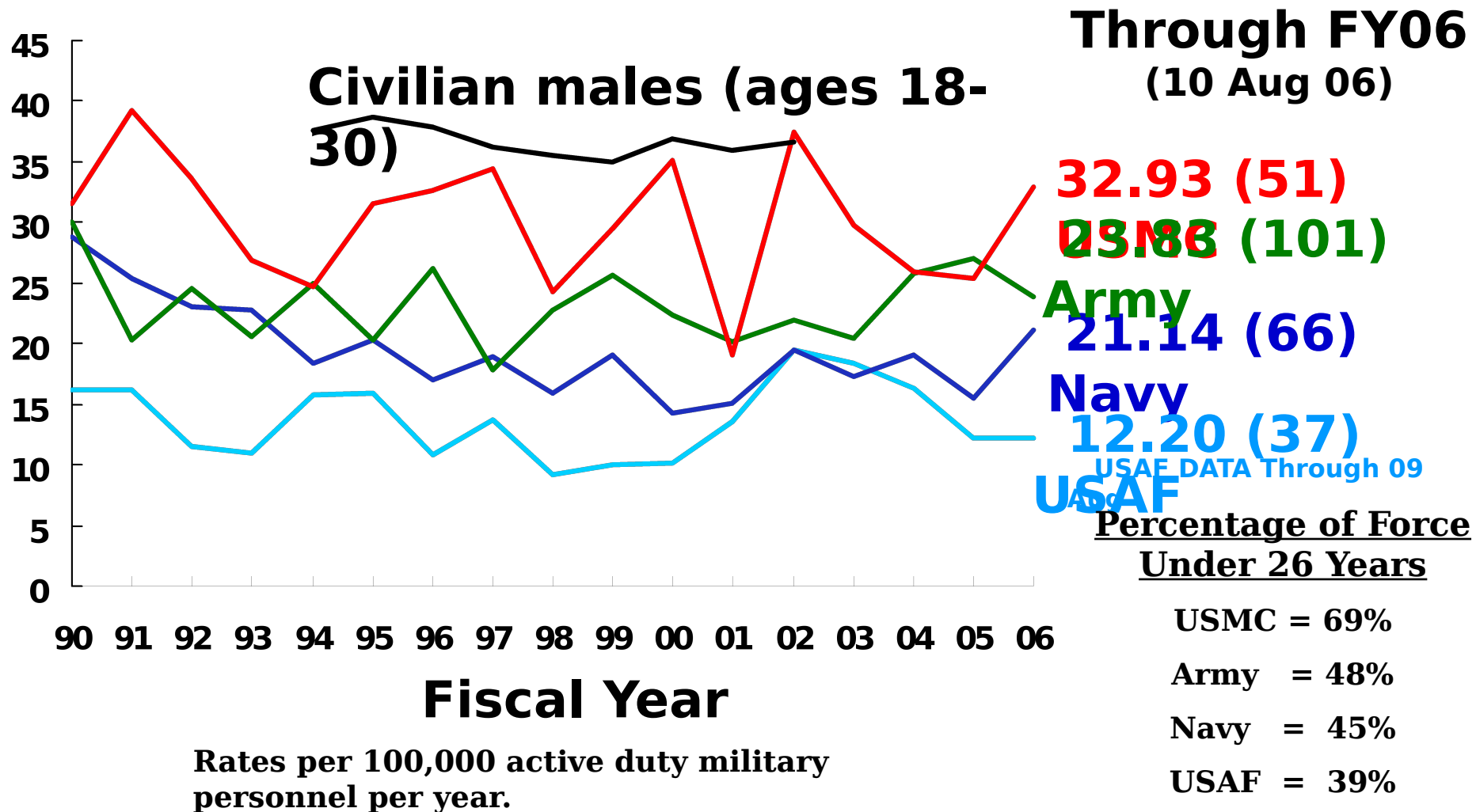
Decision Based Factors



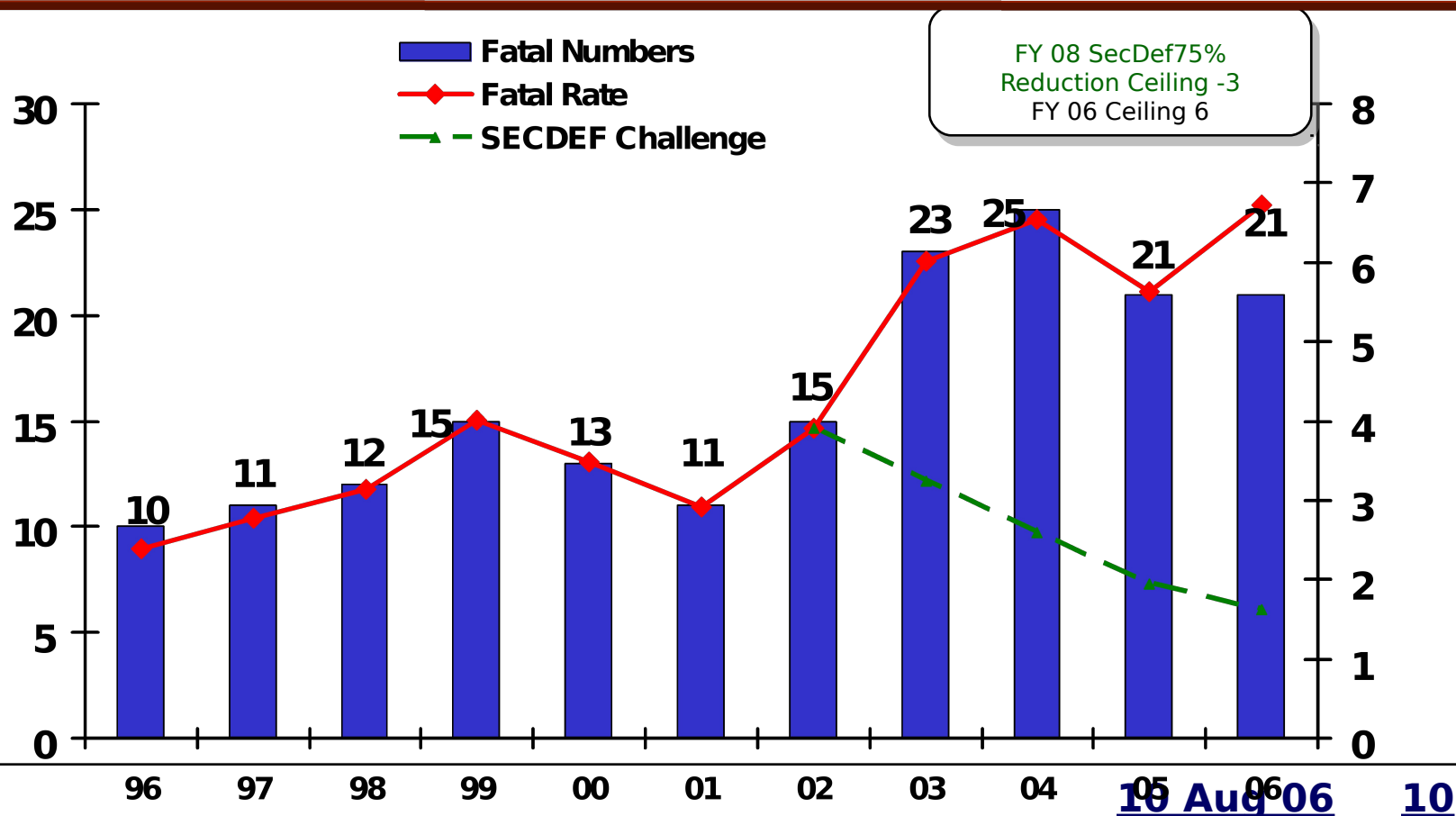
No One Should Die Because They Weren't Wearing A Seatbelt



Armed Forces Traffic Death Rates (FY90-06)



MOTORCYCLE PMV FATALITIES



Aug 05

CLASS A FATALITIES/FATALITY RATE FY COMPARISON: 21 / 6.73 16 / 4.98

FY05 FATALITIES/FATALITY RATE: 21 / 5.63

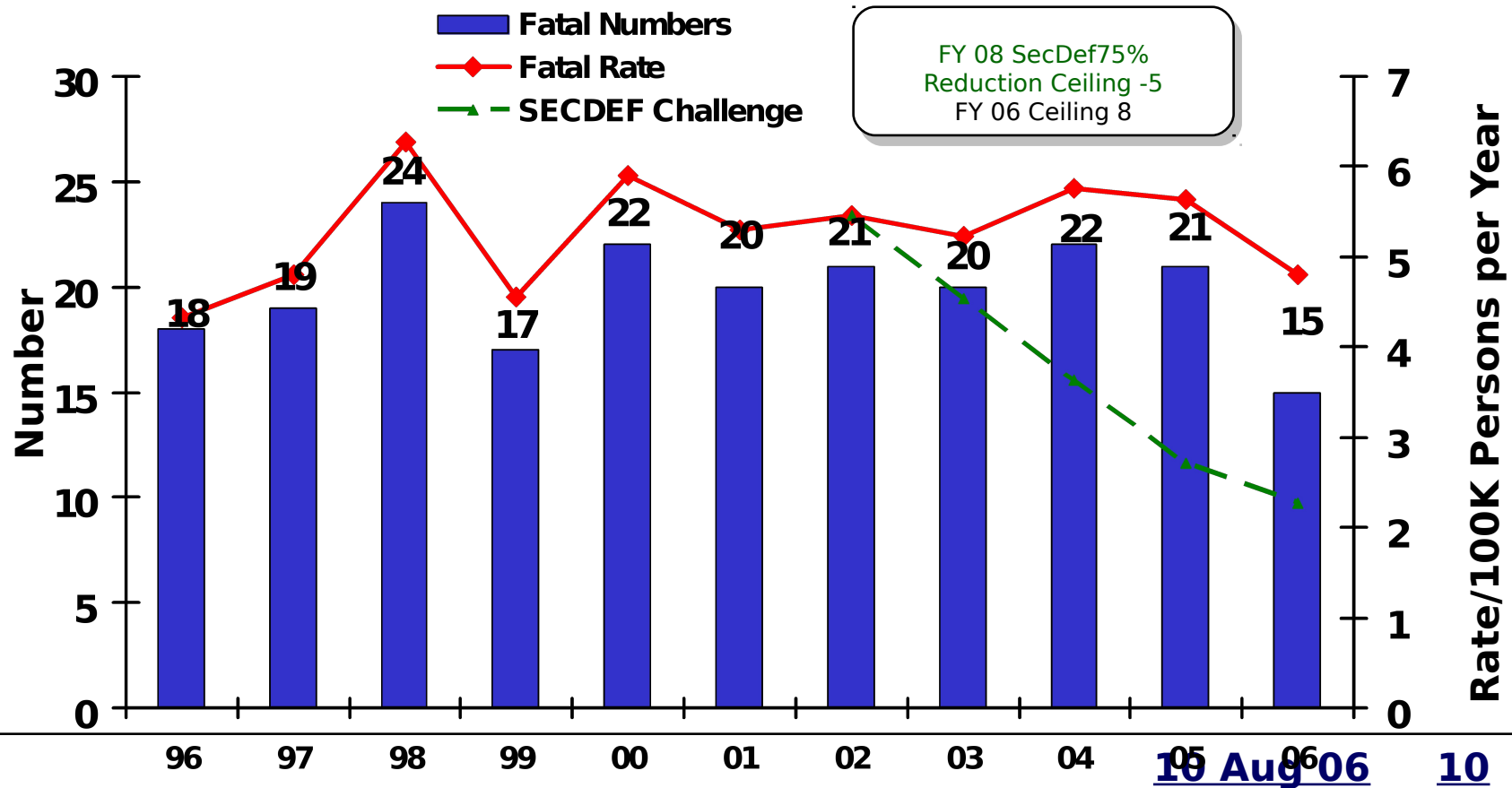
10-YEAR AVERAGE (FY96-05) FATALITIES/FATALITY RATE: 15.6 / 4.06

SWOS Brief. 18 August 2006





OFF-DUTY/REC FATALITIES



Aug 05

CLASS A FATALITIES/FATALITY RATE FY COMPARISON: 15 / 4.80 20 / 6.23

FY05 FATALITIES/FATALITY RATE: 21 / 5.63

10-YEAR AVERAGE (FY96-05) FATALITIES/FATALITY RATE: 20.4 / 5.31

What Hazards Exist Here?



Best Fleet Practices – Off-Duty Rec

- 1. Commanders/Commands and supervisors engaged in Risk Management and RODS program.**
- 2. Individuals use risk management process before participating in their leisure-time activities.**
- 3. RODS Program Managers - Ensure command personnel have seasonal hazard awareness training.**
- 4. Individual Off-Duty Risk Assessment Form - Assess behavior factors and indicators related to off-duty recreation mishaps.**
- 5. MWR Automotive/Woodworking and Small Boat Rental - Provide qualification training and skills test prior to patrons using their facilities/equipment**



ORM: Risk Management Not Risk Avoidance

Five Steps

1. Identify Hazards

2. Assess Hazards

3. Make Risk Decisions

4. Implement Controls

5. Supervise

- Easy, common-sense process
- Mind-set
- Way of life – On and Off Duty
- Operating discipline
- Process must be taught
- Must institutionalize ORM – it's

not today

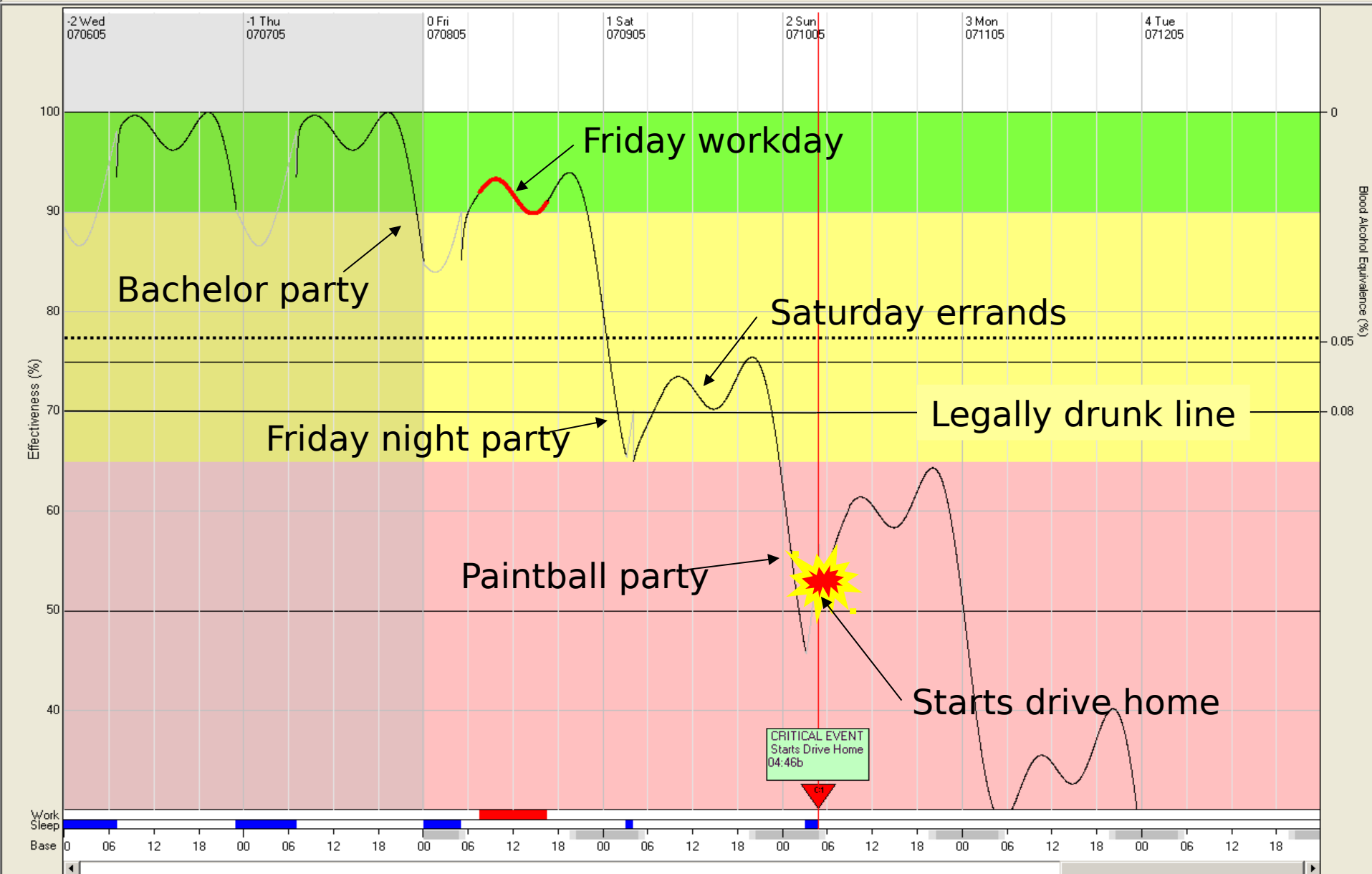
YOU CAN'T "ORM" SOMETHING THAT'S STUPID, TO SOMETHING THAT'S SMART!!!

Effective Use of Risk Management



NAVSAFCECEN “FRIDAY FUNNIES”

- AN E-5 WENT TO A BACHELOR PARTY UNTIL MIDNIGHT, SLEPT FIVE HOURS, THEN WENT TO WORK. TOILED ALL DAY, THEN WENT ON LEAVE.
- DROVE 120 MILES TO A PARTY AND BOOGALOOED UNTIL THREE O'CLOCK IN THE MORNING. SLEPT FOR AN HOUR ON THE WAY BACK, RAN ERRANDS ALL DAY, MET SOME FRIENDS FOR A MIDNIGHT GAME OF PAINTBALL THAT LASTED, ONCE AGAIN, UNTIL THAT MAGICAL HOUR OF 0300.
- HEADED HOME AT 0445. PULLED OVER WITHIN 30 MINUTES TO STRETCH AND YAWN.
- HE THEN GOT BACK BEHIND THE WHEEL, FELL ASLEEP ON A CAUSEWAY, VEERED OFF THE ROAD AND RAN INTO TWO GUARD RAILS. HIS PICKUP TRUCK WENT AIRBORNE AND SPLASHED DOWN INTO THE BAY BELOW.
- THE SAILOR CAME TO, RELEASED HIS SEAT BELT, CRAWLED THROUGH A BROKEN WINDOW, AND SWAM TO A PYLON. FORTUNATELY, A PASSING MOTORIST HAD SEEN THIS DRAMA AND CALLED EMERGENCY SERVICES.
- THE SOUND OF YOUR VEHICLE CRUMPLING INTO AN INDISTINGUISHABLE WAD AROUND YOUR SUDDENLY WIDE-AWAKE SELF IS YOUR LAST CHOICE IN AN ALARM CLOCK. AND SPENDING FOUR DAYS IN THE HOSPITAL AND TWO WEEKS CONVALESCING IS A DISMAL WAY TO SPEND YOUR TWO WEEKS OF POST-DEPLOYMENT LEAVE.



THE COMMANDING OFFICER



Recommendations to Improve Safety in Your Command

1. Naval Safety Center Website - The Tools Are There!

- Traffic Safety Toolbox
- Web-Enabled Safety System (WESS) – Online mishap reporting / database
- Leave and Liberty Risk Assessments

2. Ensure a **SOLID Welcome Aboard, Sponsorship/ Mentorship Program.**

- First impressions are lasting ones
- On and Off duty activities must be addressed

3. Identify “high-risk” personnel within command.

- Ensure leadership is engaged with subordinate personnel
- Establish awareness training of high-risk activities and mentoring for high-risk personnel
- Identify motorcycle operators and confirm required training is complete

Recommendations to Improve Safety in Your Command

4. Do the inexpensive things at a minimum.

- Schedule a Culture Workshop / Safety Survey
- Distribute “Safe Ride” taxi cards
- Conduct pre-holiday safety standdowns
- Require leave chit risk assessments prior to authorizing leave

5. Maintain high-visibility within command.

- Establish and enforce standards– defined command safety policy
- Treat every mishap the same (PMV/Off-Duty Fatality hurts command as much as material mishap)
- Correct safety deficiencies immediately
- Hold personnel ACCOUNTABLE for failure to follow regulations

6. INSPECT for compliance

- Verify command policies are being followed
- Demonstrate daily commitment to safety
- Ensure experience level matches assigned duties

What We Do for the Fleet

Naval Safety Center



Providing aviation, afloat, and shore support to Navy and Marine Corps commands



NSC at your service... for free!

Let our experience, expertise and unrivaled commitment to safety work for you.

Mishap Investigations

Surveys

Assist Visits

Data Analysis

Workshops

Publications

Website

Presentations

Exhibits

Call 757-444-3520 (DSN 564) or visit our website: www.safetycenter.navy.mil

ON THE ROAD

- Safety surveys
- Afloat Safety Climate Assessment Survey (ASCAS)
- ORM unit training
- Mishap investigations
- USMC MTT seminars
- PCO briefings
- NAVOSHENVTRACEN Safety & Occupational Health Training

AWARENESS

- Fleet Analysis
- Magazines printed/distributed (473,000 copies)
- Interactive CD's
- Acquisition process in-roads
- Safety advisories
- Customer information requests (3,600+ database queries per month)
- Safety Center web page



NSC Website: Your Valuable Resource

***www.safetycenter.
navy.mil***



Work, Play, Live ... Safely!
Naval Safety Center

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Resources

- [Executive Summary](#)
- [Safety Toolbox](#)
- [75% Mishap Reduction](#)
- [Presentations](#)
- [Traffic Safety Toolbox](#)
- [TRAC\(traffic risk mgmt.\)](#)
- [Success Stories](#)
- [Statistics](#)
- [Newsroom/Press Kit](#)
- [POD Notes, Slogans](#)

Quick Links

- [Photo of the Week](#)
- [Friday Funnies](#)
- [Safety School](#)
- [Acquisition Safety](#)
- [Safety Surveys](#)
- [Culture Workshops](#)
- [FOIA](#)
- [Secure Site \(PKI\)](#)

Staff

- [Biographies](#)
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Last Updated:
August 9, 2006

Traffic Death Update



On August 8, an E-3 from USS Dwight D. Eisenhower was killed in a car wreck near Mt. Vernon, Ky. An E-3 shipmate was injured.

[PMV Stats](#) | [PMV Narratives](#)

Navy and Marine Corps PMV Deaths FY06 to date : **117**

In the Spotlight

[What's New](#) | [More Articles](#)

- [NSC Website Breach of Information Frequently Asked Questions](#)
- [Doing It Right Vs. Doing It Right Now](#)
- [NHTSA Offers Tips for Safe Summer Trips](#)
- [Car Show and Traffic Safety Go Together](#)
- [How Not to Transport Gasoline](#)
- [Traffic5100](#)

Initiatives and Tools











This is an official U.S. Navy Web site.

Naval Safety Center, 375 A St.
Norfolk, VA 23511
[Contact the Webmaster](#)

Our Magazines Reach Every Community “Tell Your Story”

APPROACH (1955)

16,183 copies

SAFE-Approach@navy.mil

MECH (1961)

17,124 copies

SAFE-Mech@navy.mil

GROUND WARRIOR (1999)

27,550 copies

SAFE-GrndWarrior@navy.mil

SEA&SHORE (2004)

30,442 copies

SAFE-SeaShore@navy.mil

Ship's Safety Bulletin (SSB)

<http://safetycenter.navy.mil/media/ssb/default.htm>

SAFE-SSB@navy.mil

FATHOM (1969-2003)

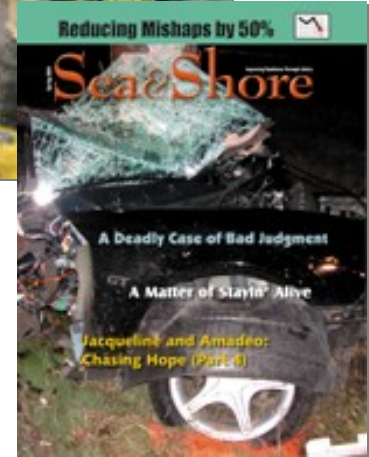
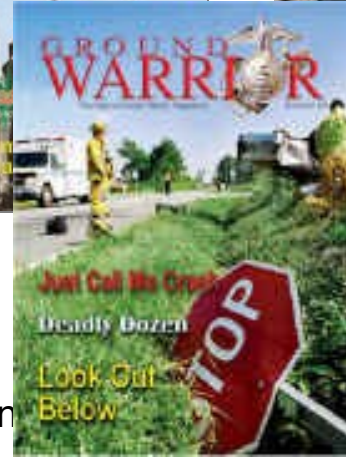
Out of circulation. For archives, visit:

<http://safetycenter.navy.mil/media/fathom/default.htm>

ASHORE (1985-2003)

Out of circulation. For archives, visit:

<http://safetycenter.navy.mil/media/ashore/default.htm>



**For distribution inquiries,
contact:**

**virginia.rives@navy.mil
757.444-3520 ext. 7256**

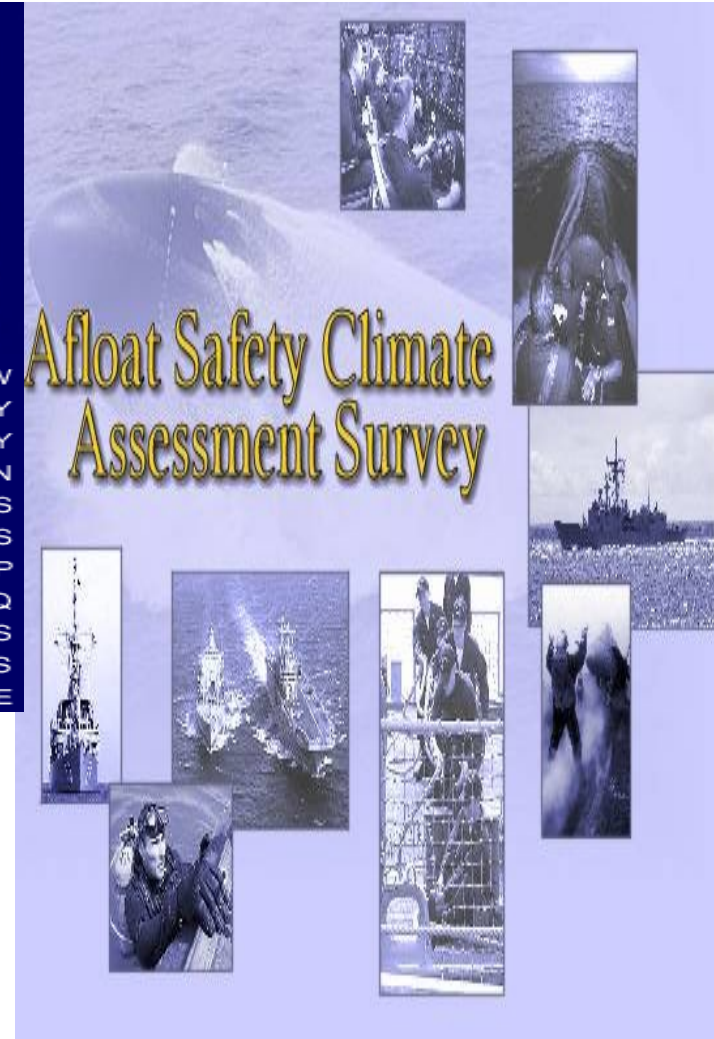
What's A Safety Survey?

- **Free, one-day assessment by Safety Center**
- **Survey teams improve your crews awareness in mishap prevention and recurring safety deficiencies**
- **No formal reports to higher authority -- not an inspection**
- **Static Appraisal**



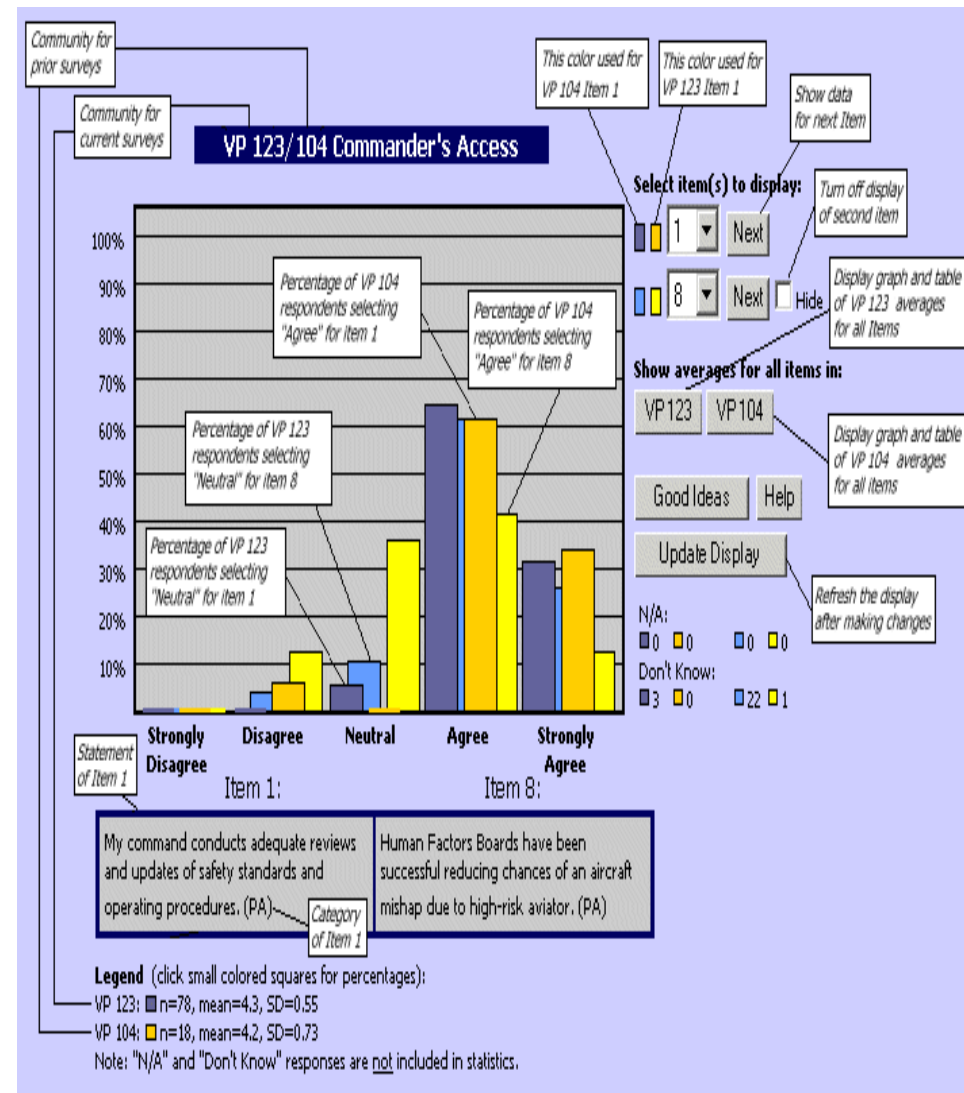
AFLOAT SAFETY CLIMATE ASSESSMENT SURVEY (ASCAS)

- What is ASCAS?
- Web based command climate survey on safety
- Designed for Dept Heads down to the most junior Sailor
- A secure way for the individual to provide an honest opinion on the ships safety program
- A private tool the CO can use to pulse the



What can ASCAS do for you?

- Examines how ship stacks up against the fleet.
- Lets the CO know exactly where the ship's safety program stands.
- Gives you a starting point to improve your safety program.
- Helps re-enforce ships safety program
- A tool to track your progress in improving your safety program





Tactics to Defeat the “Blue Threat”

Blue Threat - Action/Inaction by own forces causing losses

Blue Threat - Losses far exceed **Red Threat** losses

PMV SAFETY SUMMIT 2006

- **April-May 2006 PMV Online Survey Results:**
 - 1 out of 23 Sailors appears to have had a DUI
 - 97% of those recently returned from deployment said they had received PMV Training
 - 81% of Sailors that either had a DUI or wrecked while under the influence of alcohol had less than an Associates Degree
- **2006 PMV Focus Groups Major Findings:**
 - Personnel interviewed stated they SPEED because of adrenaline, running late for work, and testing vehicle's capability
 - Operational tempo and watch standing requirements were the casual factors mentioned for driving while FATIGUED
 - Personnel who are DRINKING out in town are reluctant to use the "Arrive Alive" or "Tipsy Taxi" if available because individuals fear repercussion from the command

TRAFFIC RISK ASSESSMENT CONTROL

- TRiPS
 - Delivered to the Naval Safety Center for Fleet use in 2006; based on ASMIS-2 Army Safety Management Information System
 - A click away on <http://www.safetycenter.navy.mil>
 - Provides ORM trip assessment and actual mishap cases relevant to planned trip. Risk values/models based on NTSB data
 - Trip map, times, distances and other products improve ***supervisor interaction***; CBT course content designed to help change behavior

COLLECTING/DISSEMINATING THE DATA



- An integrated system to web enable the data collection and information dissemination safety business processes for Navy & Marine Corps.
- Allow data transfer with DOD, other Services & other systems with a stake in safety
- Allow safety customers direct access, on-line, to safety data to target mishap prevention.

Where We're Going. . .



- **ORM - Safety Training Continuum**
 - “Cradle to grave” training for every Sailor
 - Partnership with NETC/HPDC in development of 5VM safety curriculum
 - Standardize training across USN
- **Driver Improvement Program**
 - ID high-risk drivers
 - Provide focused training
 - Develop driver-training continuum
- **Naval Safety Strategy (DASN(S))**
 - POA&M to get us to 75% mishap reduction

Our Goal...



**A MISHAP-FREE
NAVY+MARINE CORPS**

Team



www.safetycenter.navy.mil

Contacts and Resources

Naval Safety Center Website: www.safetycenter.navy.mil

PMV/Recreation Fatalities Statistics [http://
www.safetycenter.navy.mil/execsummary/default.htm](http://www.safetycenter.navy.mil/execsummary/default.htm)

Culture Workshop/Best Fleet Practices/Lessons Learned
<http://www.safetycenter.navy.mil/culture/default.htm>

Traffic Safety Toolbox

<http://www.safetycenter.navy.mil/ashore/motorvehicle/toolbox/default.htm>

Focus Groups/Strategic Planning/Marketing

evelyn.odango@navy.mil or 757-444-3520 x 7312

Traffic Safety/Off-Duty Priority Initiatives

Traffic: mary.brigham@navy.mil or 757-444-3520 x 7134

Community Partnerships: bonnie.revell@navy.mil or 757-444-3520 x 7138

dan.steber@navy.mil or 757-444-3520





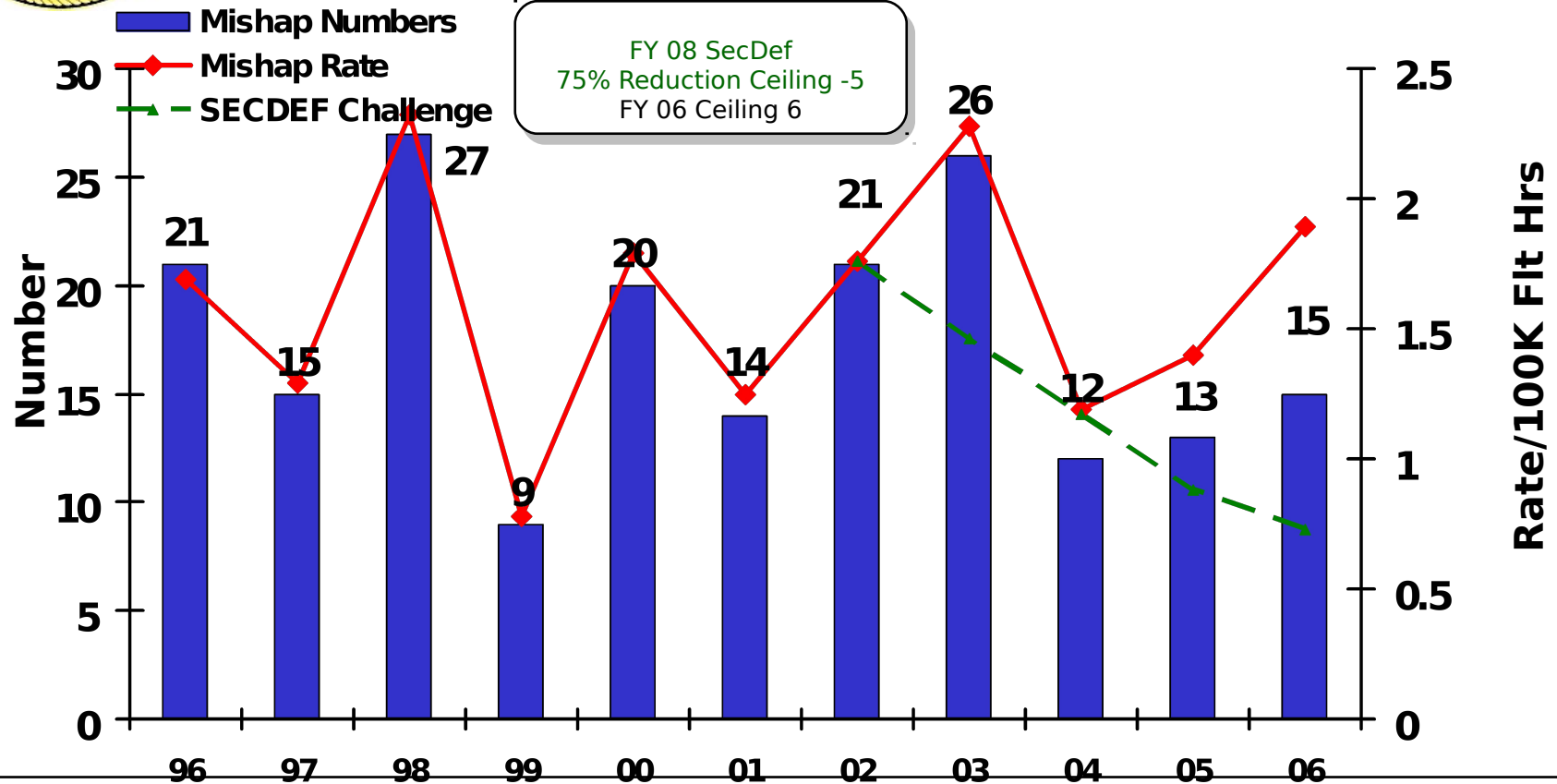
NAVAL SAFETY CENTER

Questions?





CLASS A FLIGHT MISHAPS



Aug 05

CLASS A FM/FM RATE FY COMPARISON: 15 / 1.89

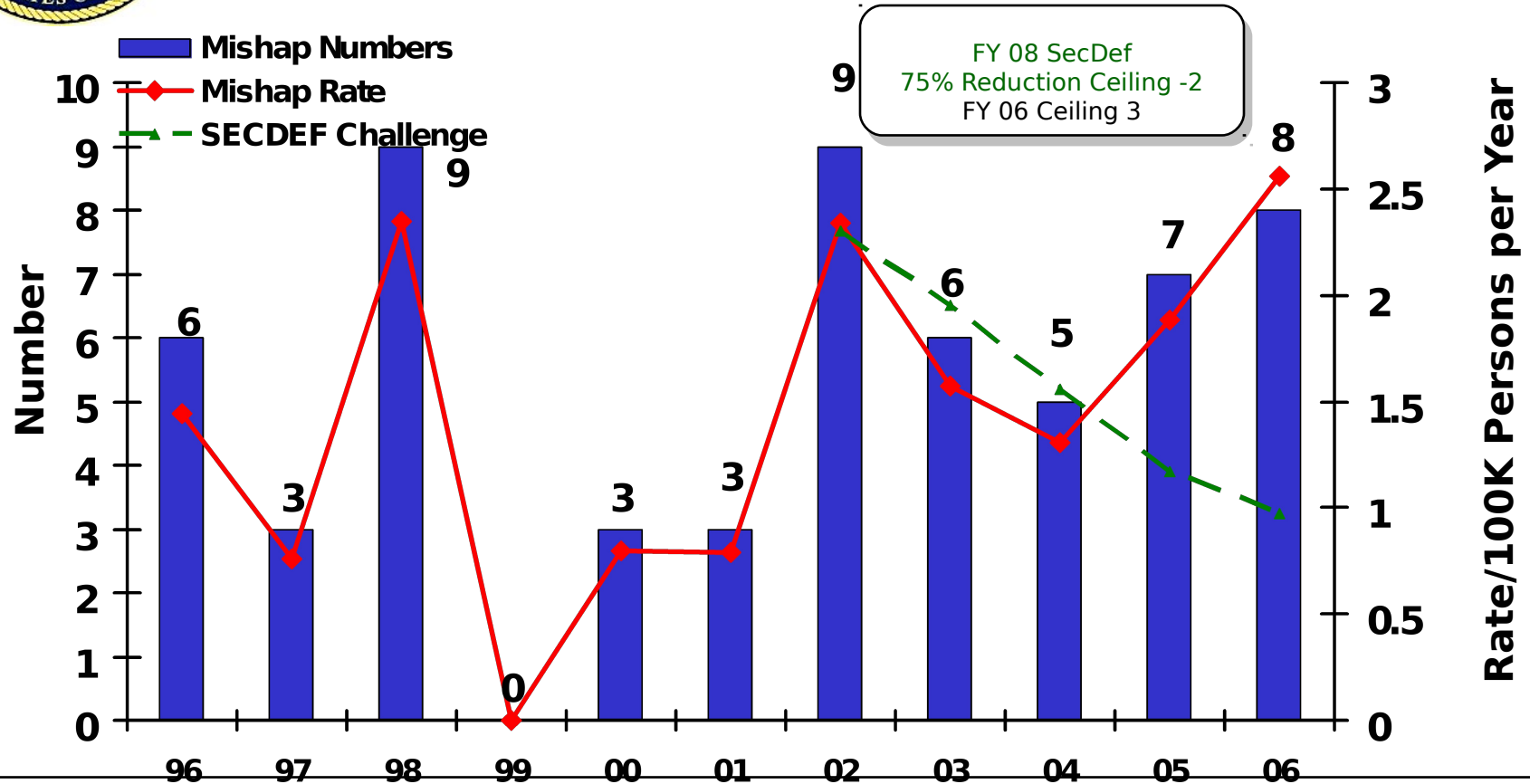
11 / 1.40

FY05 MISHAPS/MISHAP RATE: 13 / 1.40

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE: 17.8 / 1.59



PHYSICAL TRAINING FATALITIES



Aug 05

CLASS A MISHAPS/MISHAP RATE FY COMPARISON:

8 / 2.56

5 /

1.56

FY05 MISHAPS/MISHAP RATE:

7 / 1.88

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE:

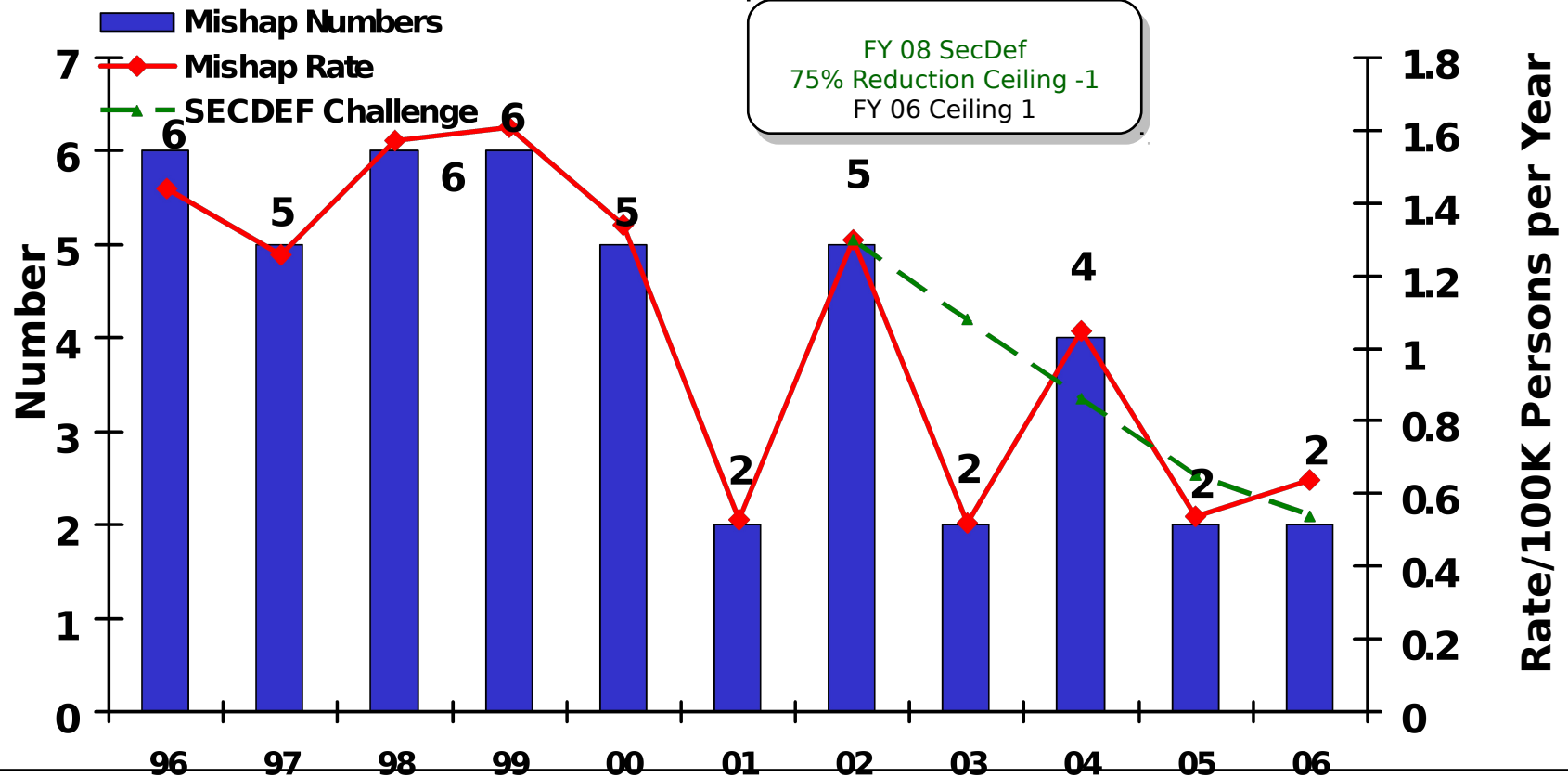
5.1 / 1.33

10 Aug 06

10



CLASS A OPER MV MISHAPS



Aug 05

CLASS A MISHAPS/MISHAP RATE FY COMPARISON:

0.62

2 / 0.64

2 /

FY05 MISHAPS/MISHAP RATE:

2 / 0.54

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE:

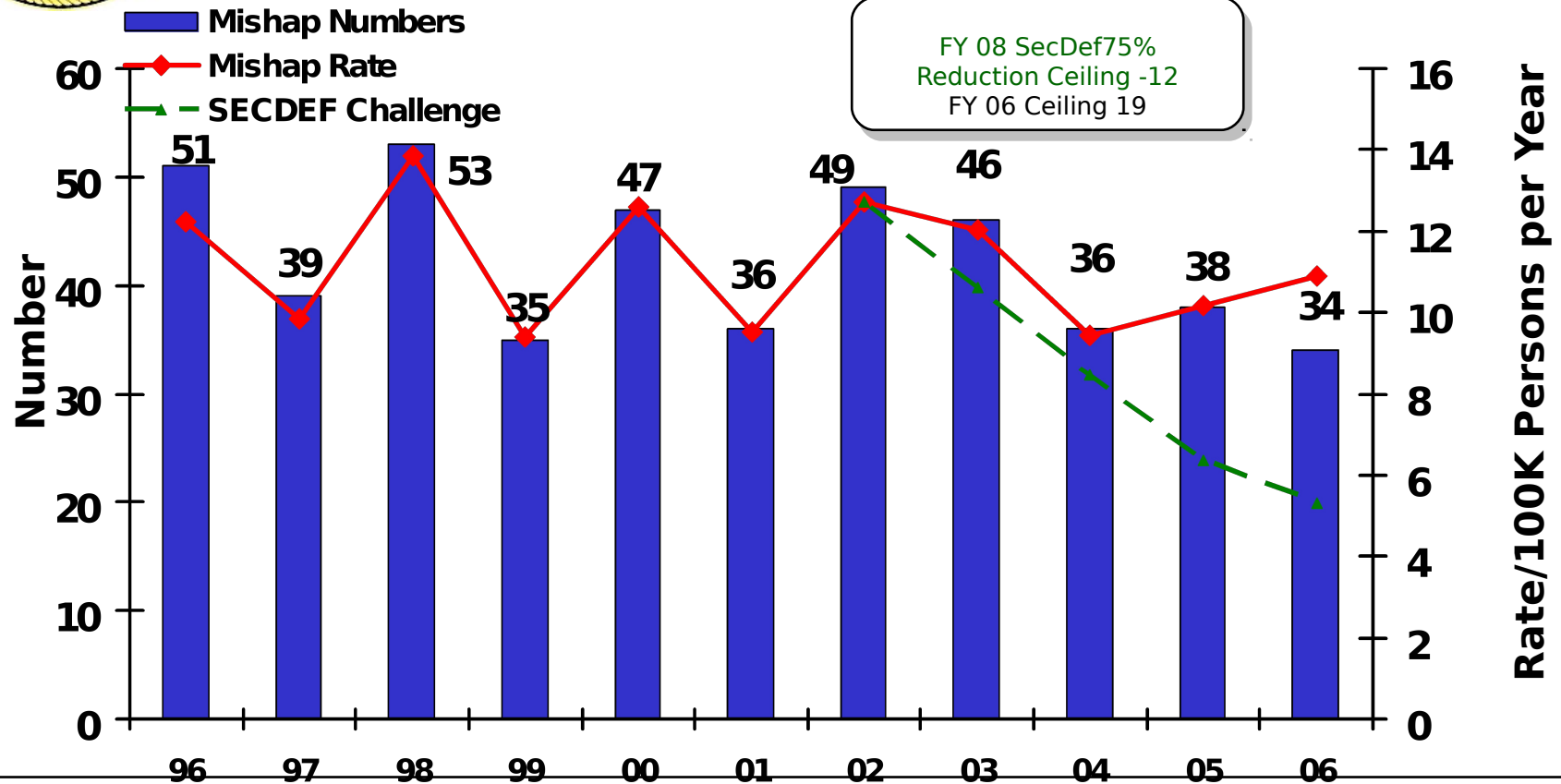
4.3 / 1.12

10 Aug 06

10



TOTAL CLASS A OPER MISHAPS



Aug 05

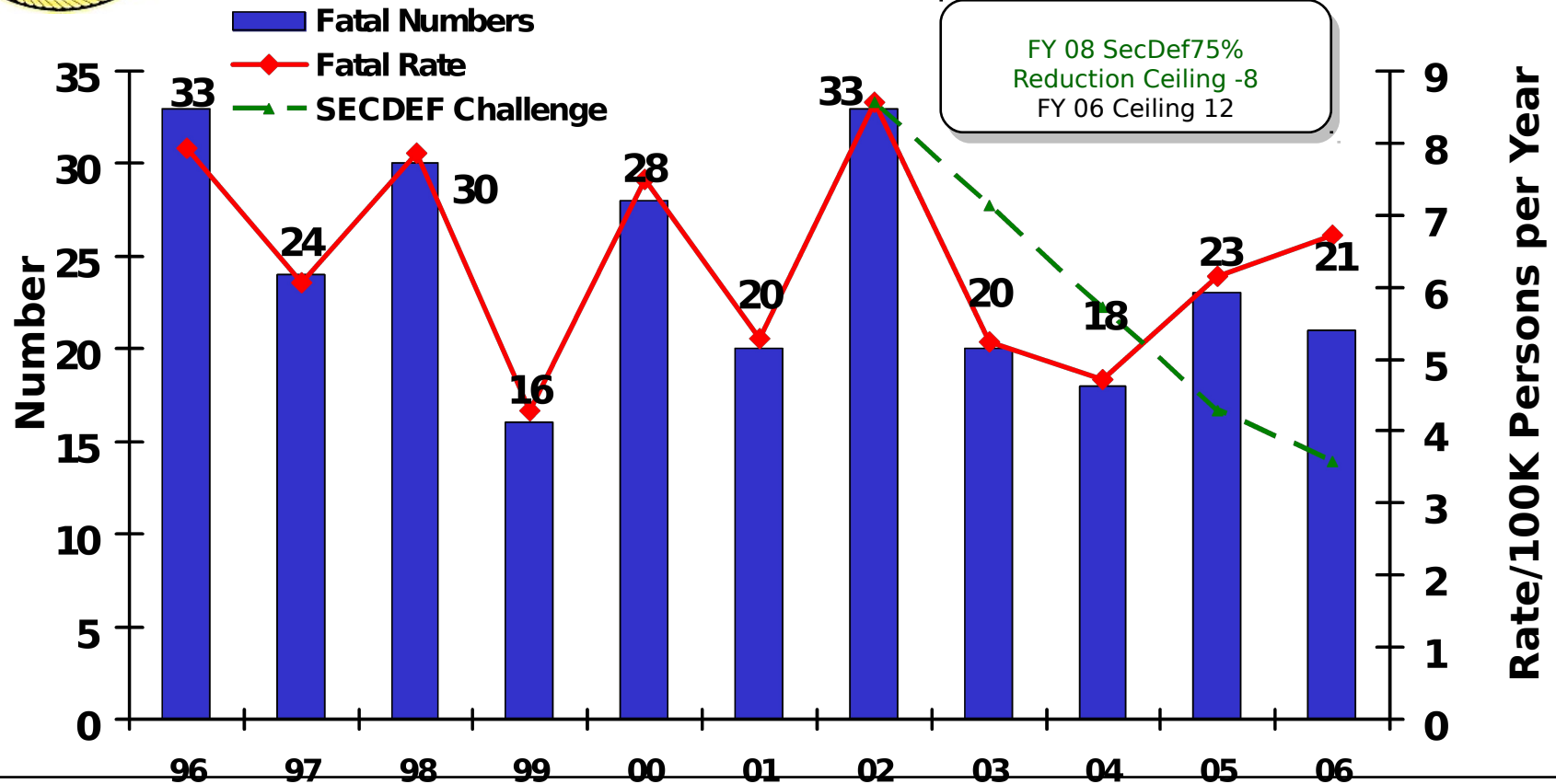
CLASS A MISHAPS/MISHAP RATE FY COMPARISON: 34 / 10.89 28 / 8.72

FY05 MISHAPS/MISHAP RATE: 38 / 10.18

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE: 43.0 / 11.19



OPERATIONAL FATALITIES



Aug 05

10 Aug 06 10

4.67

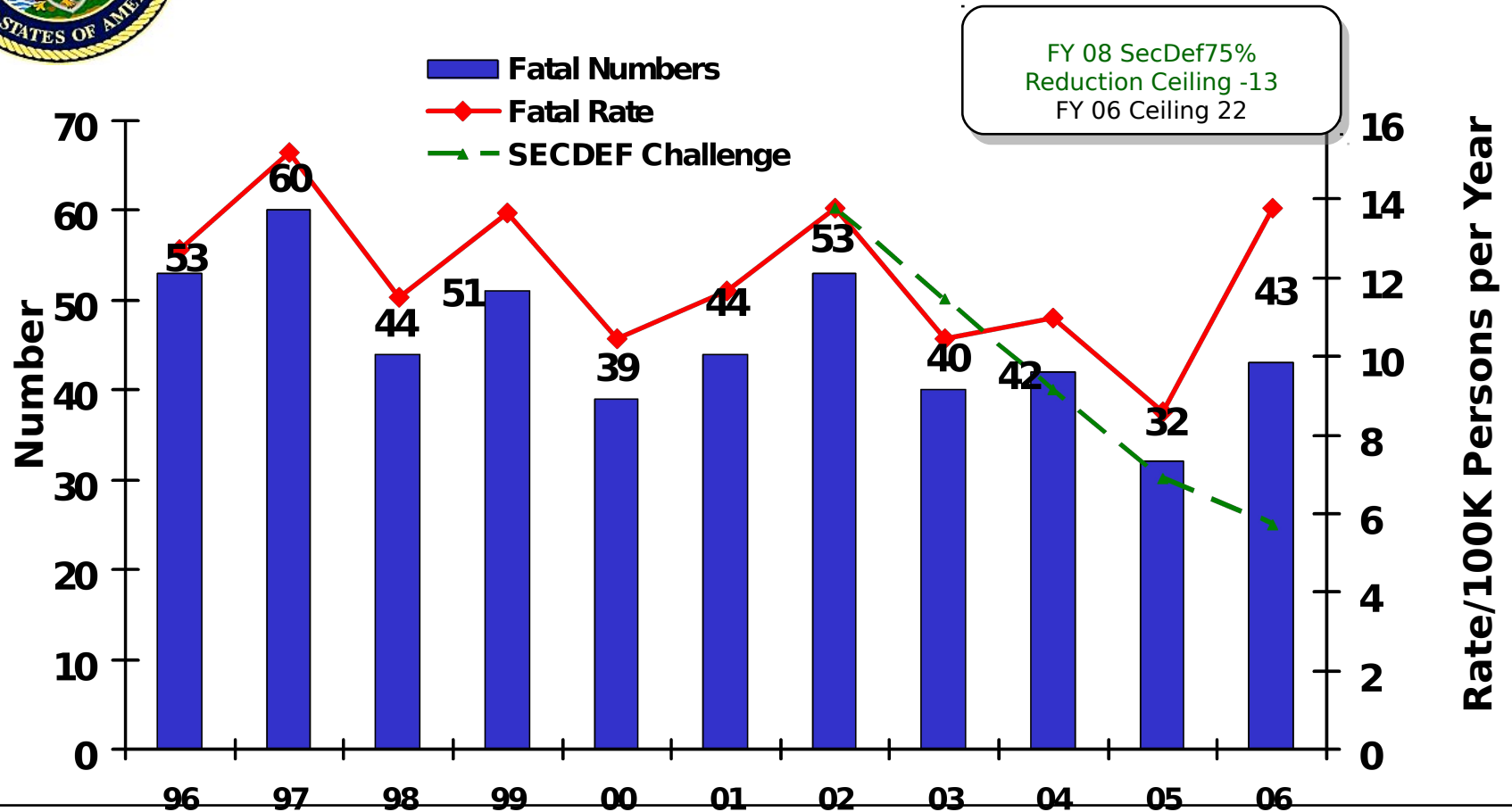
FATALITIES/FATALITY RATE FY COMPARISON: 21 / 6.73 15 /

FY05 FATALITIES/FATALITY RATE: 23 / 6.16

10-YEAR AVERAGE (FY96-05) FATALITIES/FATALITY RATE: 24.5 / 6.38



4-WHEEL PMV FATALITIES



Aug 05

CLASS A FATALITIES/FATALITY RATE FY COMPARISON: 43 / 13.77 28 / 8.72

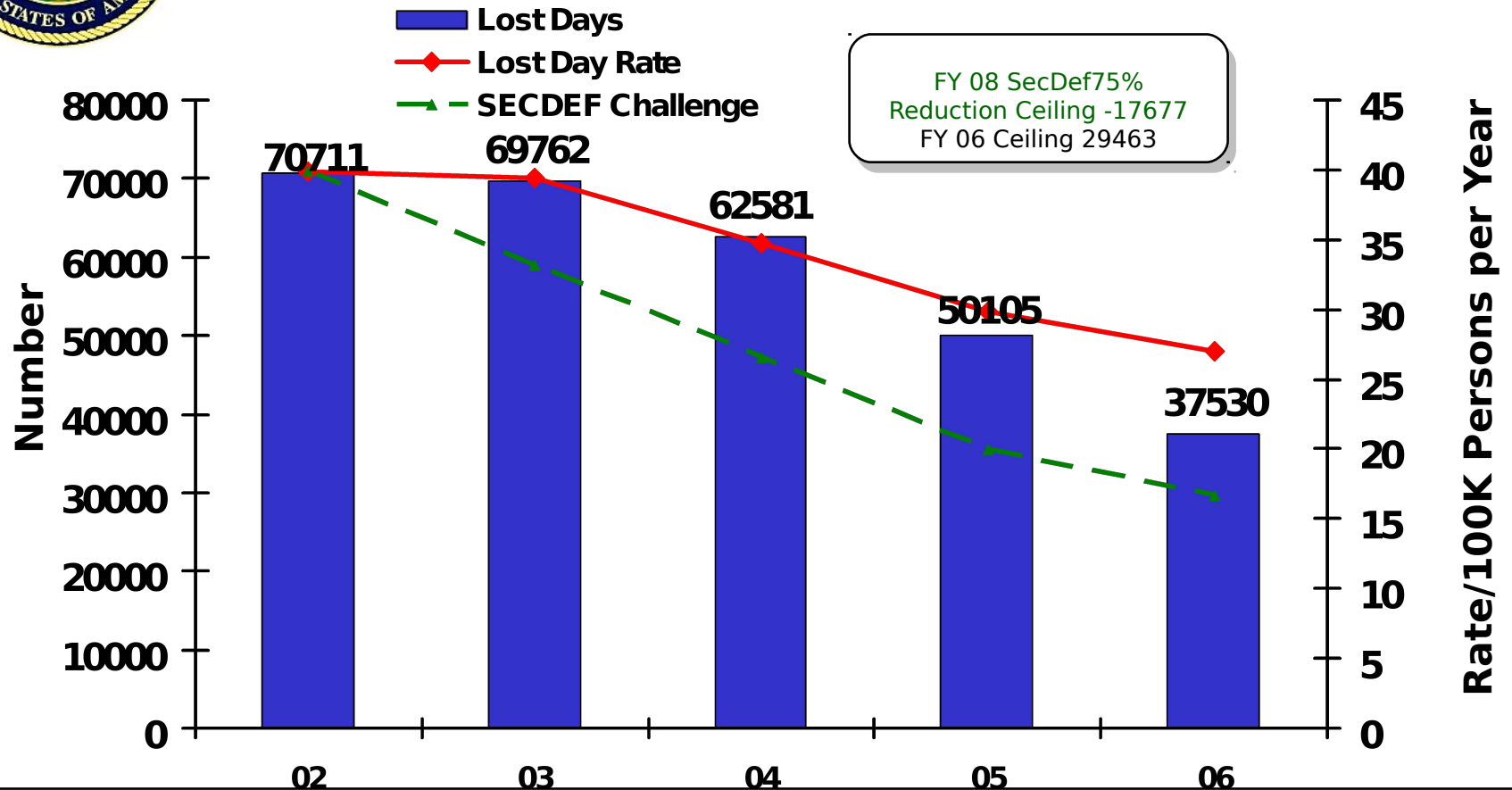
FY05 FATALITIES/FATALITY RATE: 32 / 8.57

10-YEAR AVERAGE (FY96-05) FATALITIES/FATALITY RATE: 45.8 / 11.92

*pedestrian fatalities not included
10 Aug 06



CIVILIAN LOST WORK DAY



05

29.73

LOST WORK DAY FY RATE COMPARISON: 26.99

FY05 LOST WORK DAY RATE: 29.89

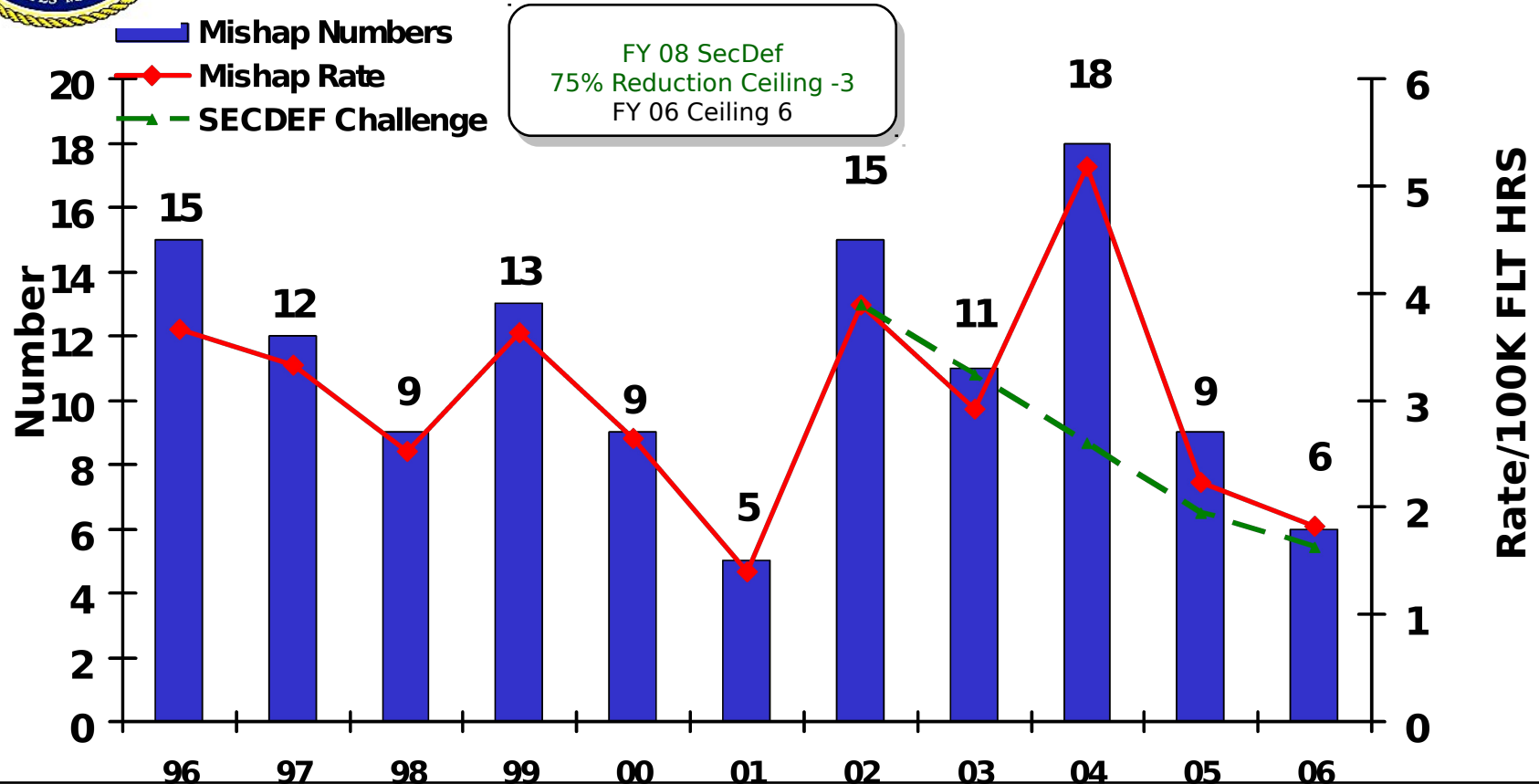
4-YEAR AVERAGE (FY02-05) LOST WORK DAY RATE: 36.03

22 Jul 06

23 Jul



CLASS A FLIGHT MISHAPS



Aug 05

9 / 2.62

CLASS A FM/FM RATE FY COMPARISON: 6 / 1.83

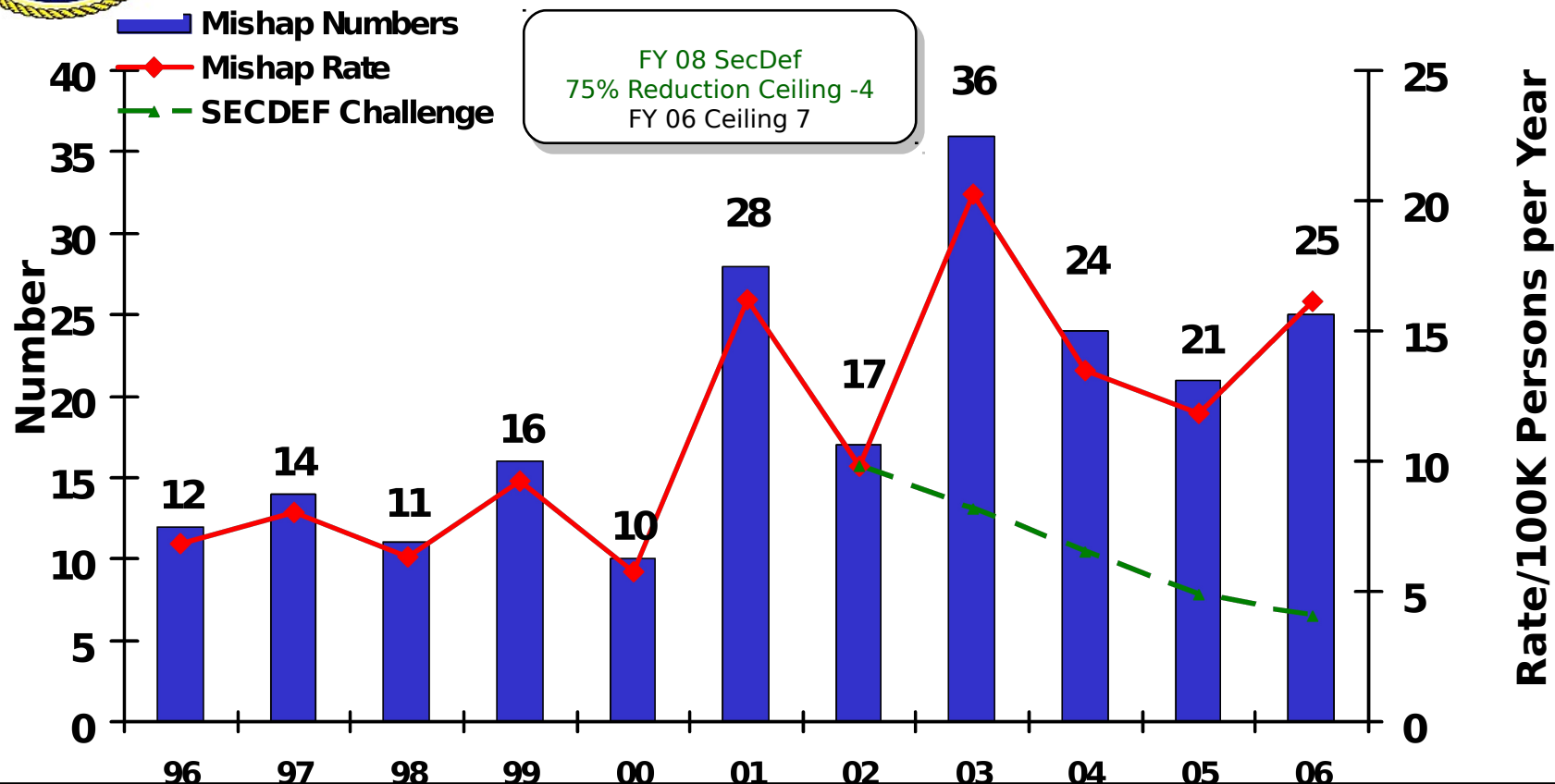
FY05 MISHAPS/MISHAP RATE: 9 / 2.24

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE: 11.6 / 3.14

10 Aug 06 10



CLASS A GROUND OPER MISHAPS



Aug 05

CLASS A MISHAPS/MISHAP RATE FY COMPARISON: **25 / 16.14 19 / 12.45**

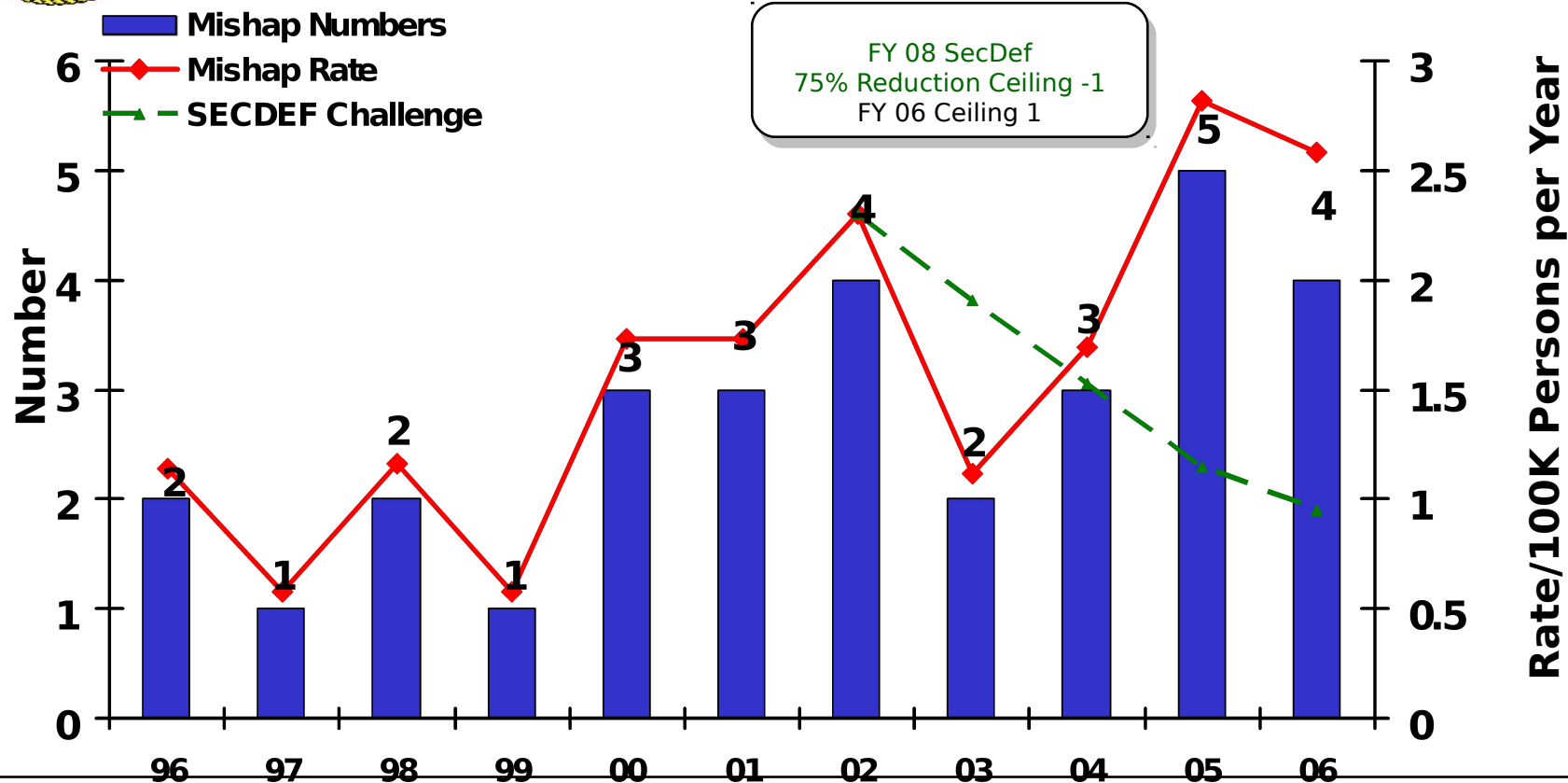
FY05 MISHAPS/MISHAP RATE: **21 / 11.83**

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE: **18.9 / 10.81**

10 Aug 06 10



CLASS A OPER MV MISHAPS



Aug 05

CLASS A MISHAPS/MISHAP RATE FY COMPARISON:

4 / 2.58

4 /

2.62

FY05 MISHAPS/MISHAP RATE:

5 / 2.82

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE:

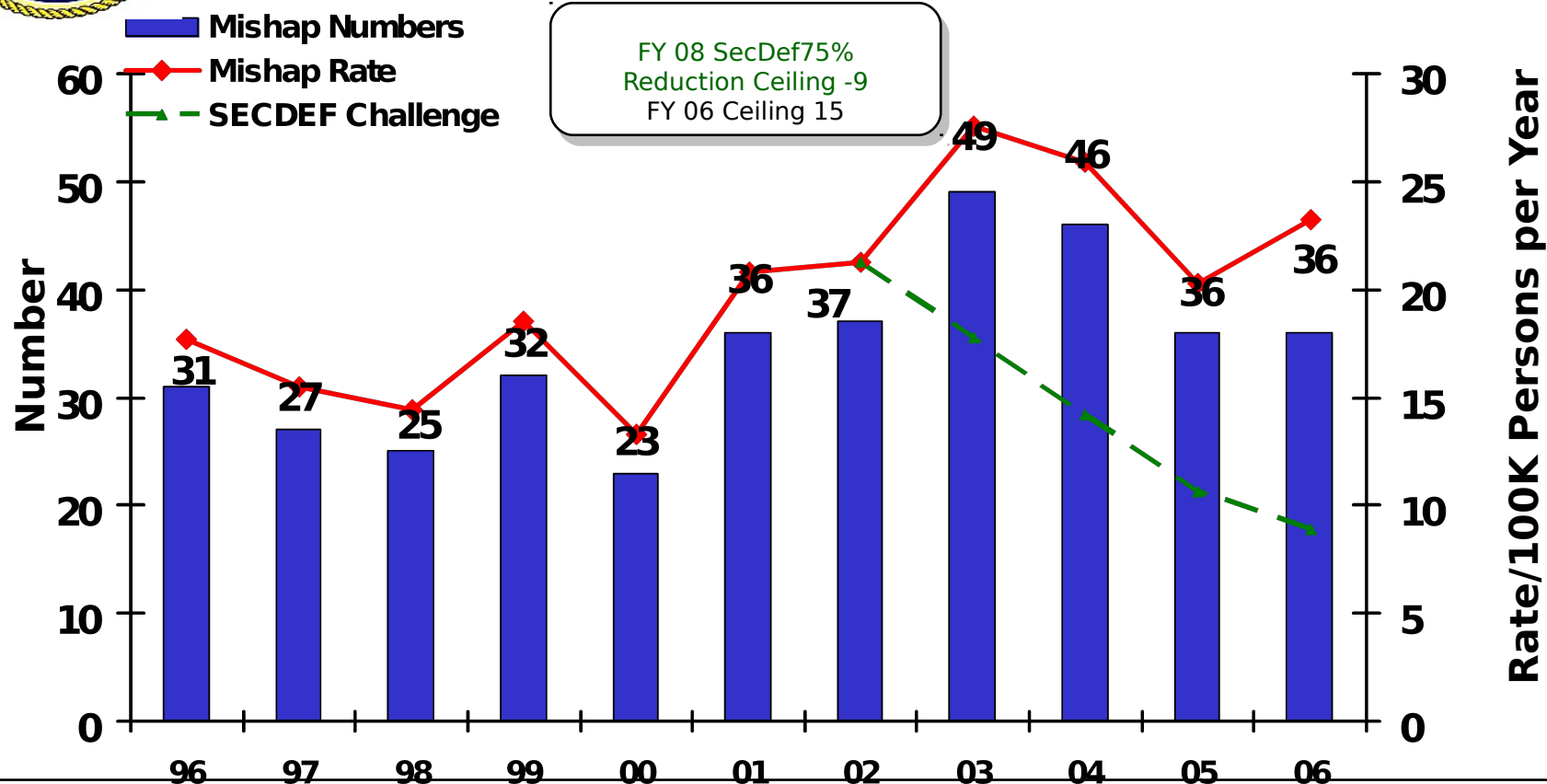
2.6 / 1.49

10 Aug 06

10



TOTAL CLASS A OPER MISHAPS



Aug 05

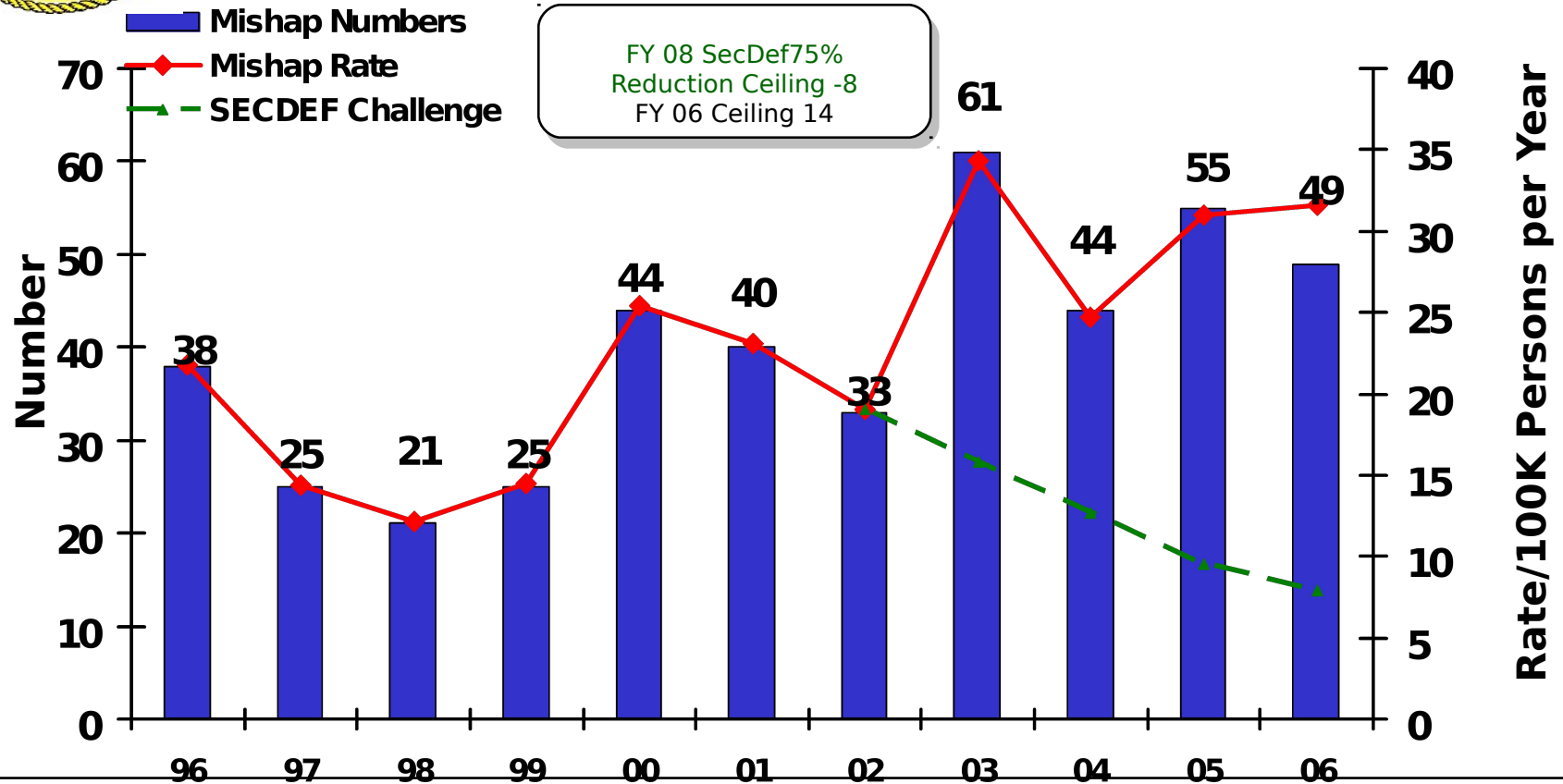
CLASS A MISHAPS/MISHAP RATE FY COMPARISON: 36 / 23.25 33 / 21.62

FY05 MISHAPS/MISHAP RATE: 36 / 20.28

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE: 34.2 / 19.57



OPERATIONAL FATALITIES



Aug 05

CLASS A MISHAPS/MISHAP RATE FY COMPARISON: 49 / 31.64 52 / 34.06

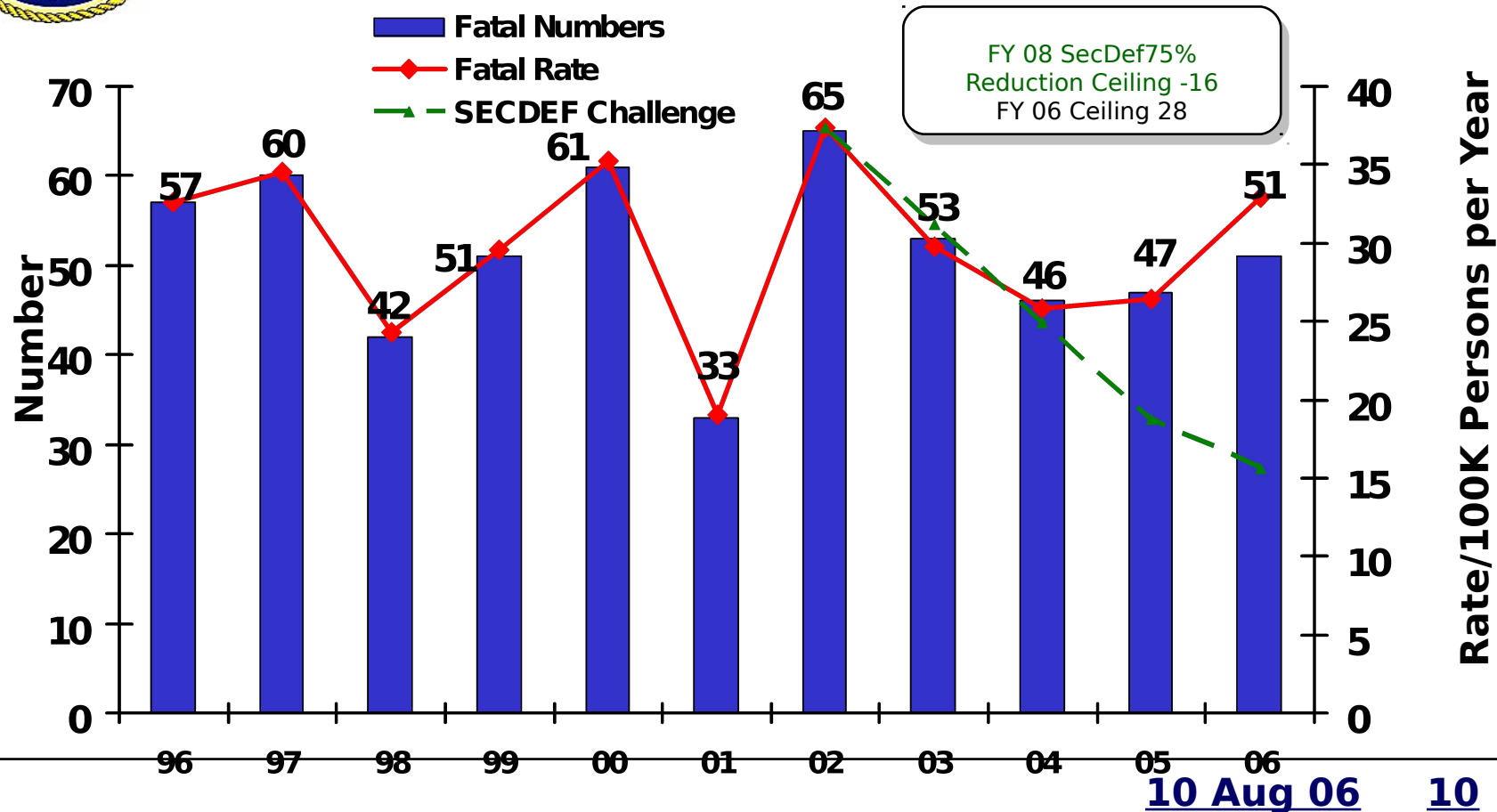
MISHAPS/MISHAP RATE: 55 / 30.99

10-YEAR AVERAGE (FY96-05) MISHAPS/MISHAP RATE: 38.6 / 22.09

10 Aug 06 10



PMV FATALITIES



Aug 05

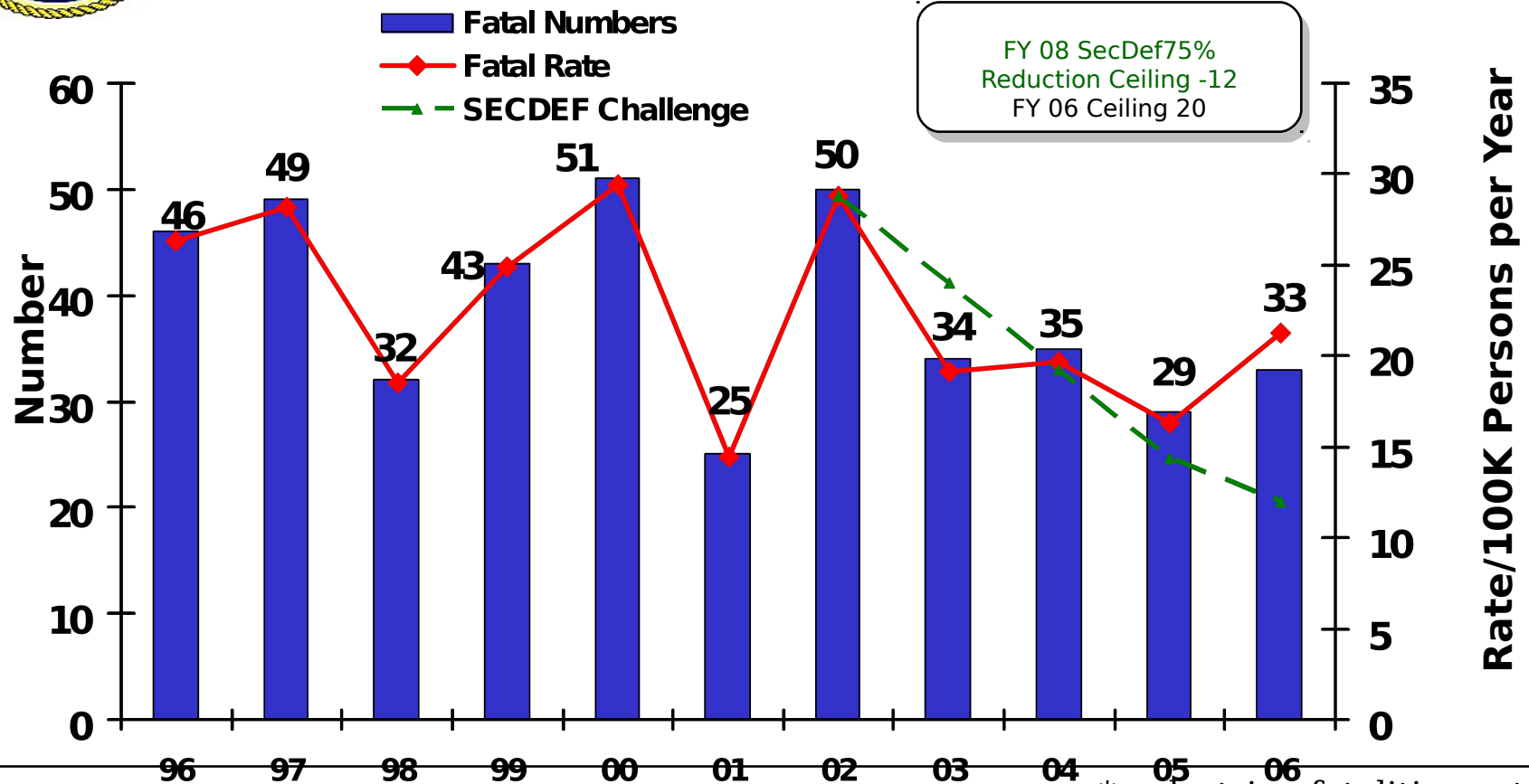
CLASS A FATALITIES/FATALITY RATE FY COMPARISON: 51 / 32.93 43 / 28.17

FY05 FATALITIES/FATALITY RATE: 47 / 26.48

10-YEAR AVERAGE (FY96-05) FATALITIES/FATALITY RATE: 51.5 / 29.47



4-WHEEL PMV FATALITIES



Aug 05

CLASS A FATALITIES/FATALITY RATE FY COMPARISON: 33 / 21.31 29 / 19.00

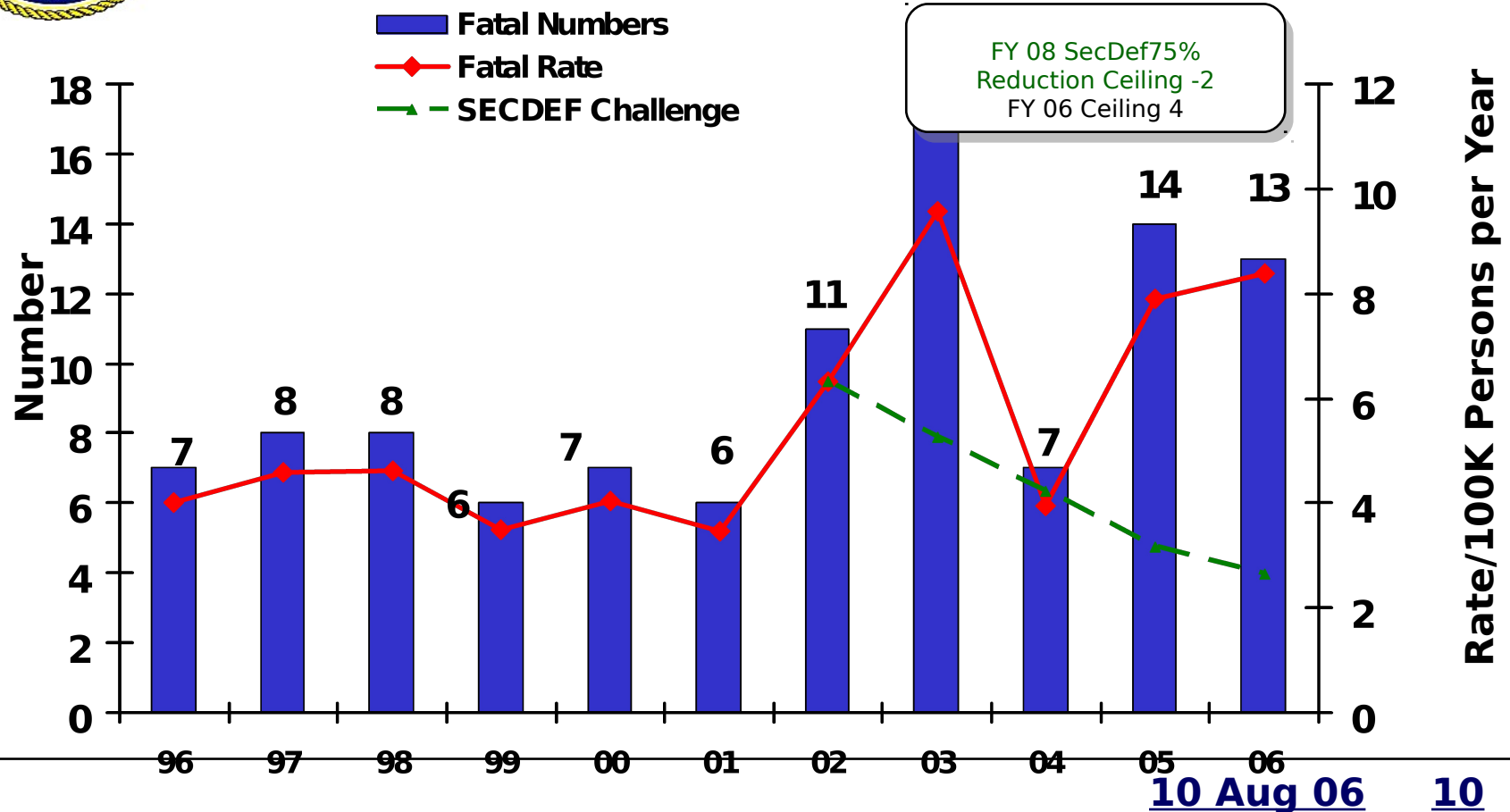
FY05 FATALITIES/FATALITY RATE: 29 / 16.34

10-YEAR AVERAGE (FY96-05) FATALITIES/FATALITY RATE: 39.4 / 22.55

*pedestrian fatalities not included
10 Aug 06



MOTORCYCLE PMV FATALITIES



Aug 05

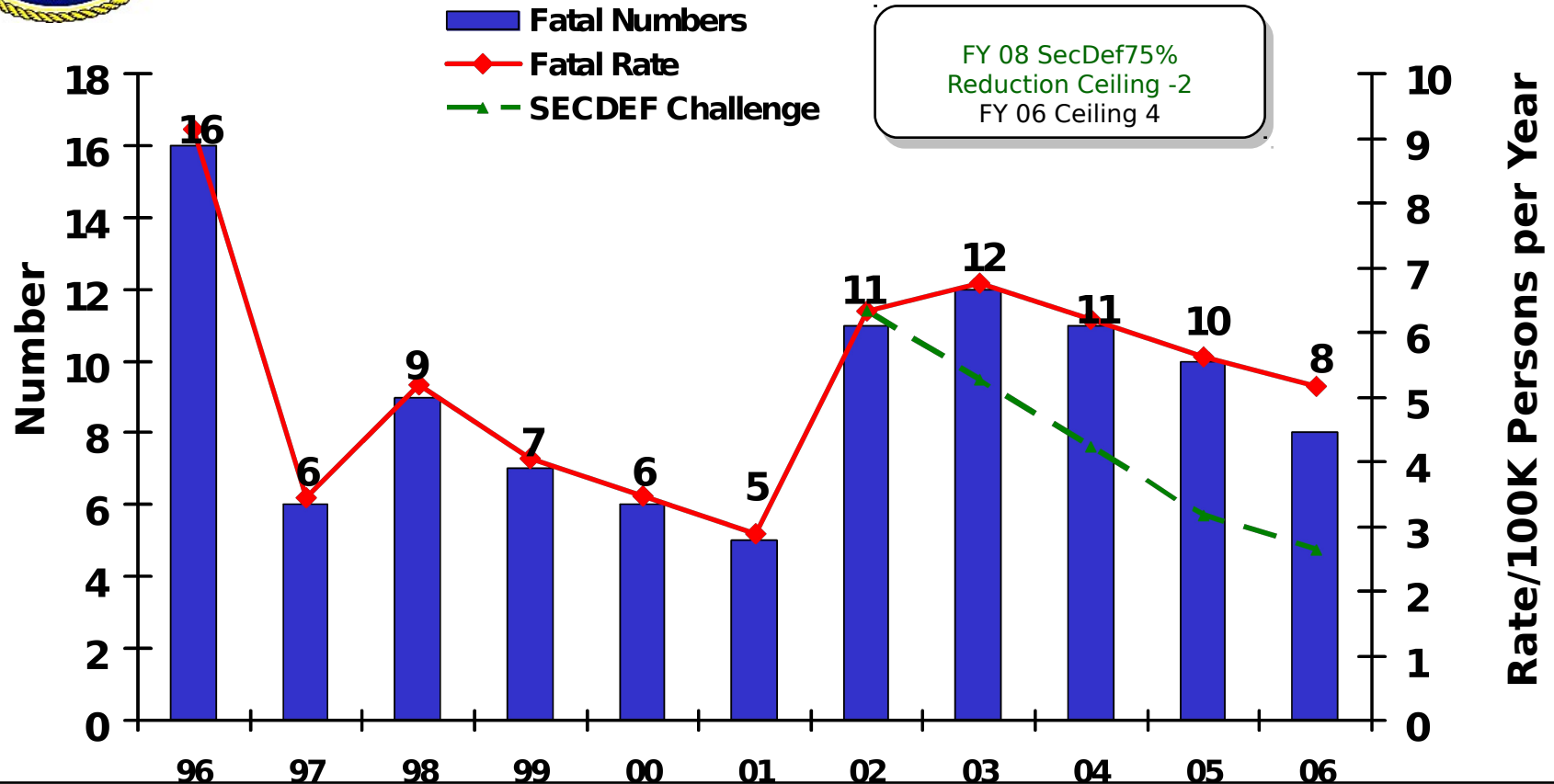
CLASS A FATALITIES/FATALITY RATE FY COMPARISON: 13 / 8.39 12 / 7.86

FY05 FATALITIES/FATALITY RATE: 14 / 7.89

10-YEAR AVERAGE (FY96-05) FATALITIES/FATALITY RATE: 9.1 / 5.21



OFF-DUTY/REC FATALITIES



Aug 05

CLASS A FATALITIES/FATALITY RATE FY COMPARISON: 8 / 5.17 8 / 5.24

FY05 FATALITIES/FATALITY RATE: 10 / 5.63

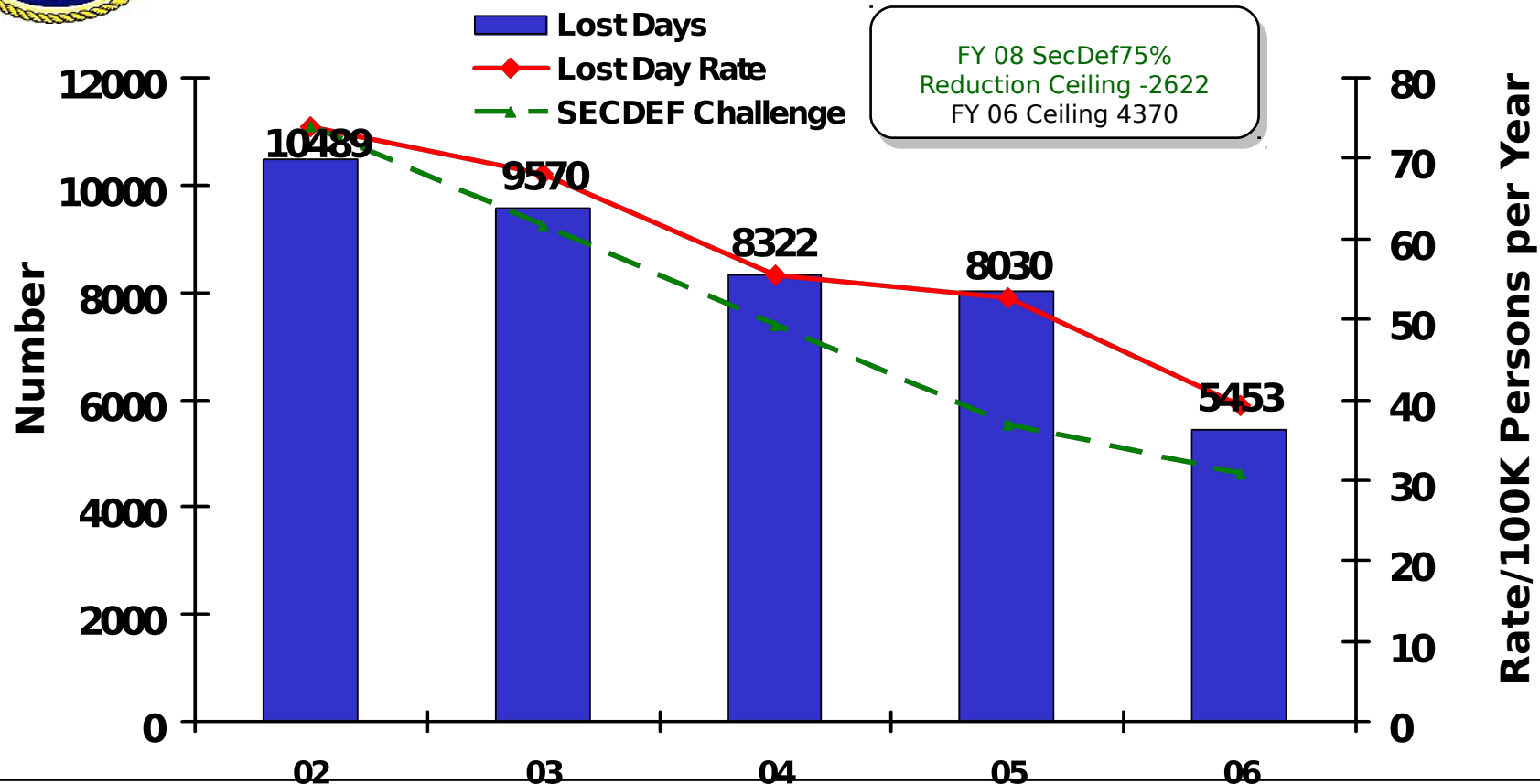
10-YEAR AVERAGE (FY96-05) FATALITIES/FATALITY RATE: 9.3 / 5.32

10 Aug 06

10



CIVILIAN LOST WORK DAY



05

LOST WORK DAY FY RATE COMPARISON : 39.33

53.10

FY05 LOST WORK DAY RATE : 52.57

4-YEAR AVERAGE (FY02-05) LOST WORK DAY RATE : 62.18

22 Jul 06

23 Jul